LEGAL AND ADMINISTRATIVE ARRANGEMENTS FOR YUKON RIVER BASIN WATER MANAGEMENT

by

A.R. Thompson and A. Ourom

Westwater Research Centre
The University of British Columbia

March 1984

YUKON RIVER BASIN STUDY

This project was completed for the Yukon River Basin Study, an intergovernmental study funded by the governments of Canada, Yukon and British Columbia.

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I. The Constitutional Context

The Constitution Act, 1982

The constitutional context for water resources in the Yukon River Basin is a mixture of rules allocating ownership and control of the resource between the different levels of government in Canada and rules assigning law-making powers to the respective legislatures of these governments.

In a formal sense, ownership of the water resource begins with the sovereign. But in Canada, Her Majesty the Queen is represented at both the federal and provincial levels. At confederation in 1867, s. 109 of the then British North America Act, 1867 (now the Constitution Act, 1867) stated that the Crown's ownership of natural resources in each region would continue in the name of each of the federating provinces and would not be transferred to the new Dominion of Canada. When, in 1871, British Columbia joined confederation, it, too, retained natural resource ownership, so that the correct legal owner of the water resource in this province is "Her Majesty the Queen in the Right of British Columbia."

By Imperial order-in-council of July 15, 1870, the North-Western Territory became part of Canada pursuant to s.146 of the Constitution Act, 1867. The legal effect of this change was to vest title to natural resources in the North-Western Territory in Her Majesty in the right of Canada in the place of her Majesty in the Right of Great Britain.

The Yukon Territory was created out of the North-Western Territory in 1898 in response to the Klondike Gold Rush. But it was not then given provincial status. While the Yukon Territory has a history of evolution toward provincehood, its territorial status continues at present. Consequently, in legal terms, ownership of water resources in the Yukon remains vested in Her Majesty in the Right of Canada.

These ownership rights of the Crown are subject to validly enacted legislation specifying how they may be allocated and used. This legislation may be enacted by either the Parliament of Canada, the legislature of British Columbia or the Legislature of the Yukon. To be valid they must conform with the respective law-making powers assigned to these legislative bodies.

As between the Parliament of Canada and the Legislature of British Columbia, the Constitution Act, 1982, and particularily ss.91 and 92, parcel out legislative jurisdiction.

British Columbia

To complement its ownership of natural resources, British Columbia is given the exclusive power to enact laws for their "management and sale" (s.92(5)). A special provision with respect to water resources is contained in s.92A (added by s.50 of the Constitution Act, 1982) whereby the provincial legislature can exclusively make laws for the "development, conservation and management of sites and facilities in the province for the generation and production of electrical energy." The planning and development of

hydroelectric dams and generating facilities is the subject of a companion study to this study entitled An Assessment of Institutional Arrangements in the Yukon River Basin for Planning, Construction and Operating Hydroelectric Power Facilities.

These provisions make clear that the province may allocate rights to use water resources as well as regulate engineering works and facilities required for water use developments. These legislative powers are reinforced by the provisions of ss.92(13) and (16) of the Constitution Act, 1982 whereby British Columbia can legislate as to "property and civil rights" and "matters of a merely local or private nature," respectively.

Pursuant to these powers, the Legislature of British Columbia has enacted several statutes of major importance from the perspective of water resources. Foremost is the Water Act which provides for the allocation of water rights and the regulation of water uses. In the case of water quality, the Waste Management Act is the principal statute. Other important laws are the B.C. Hydro and Power Authority Act, the Utilities Commission Act, the Environment Management Act and the Environment and Land Use Act. The operation of these statutes in connection with water resources is explained in detail in the following chapters.

As initial owner of the water resource, and with legislative jurisdiction over its management and sale, British Columbia could have disposed of water rights in an outright fashion along with land grants to private individuals and companies through a system of riparian ownership. Instead, the Water Act provides that all water rights are vested in the Crown in the right of the province and that only limited

rights to use water may be issued under a system of conditional and final water licences. In addition, pursuant to the Land Act, the beds and shores of lakes, rivers, streams and other bodies of water remain vested in the Crown in the right of the province except in a few, defined situations where prior acquired rights exist. Consequently, continuing ownership of the water resource and its immediate land environment by the province remains a cornerstone of water resource policy in British Columbia.

Canada

Despite the combination of water resource ownership and legislative jurisdiction residing in the province, the Parliament of Canada and the federal government have roles of major significance in all aspects of water use. The reason is that s. 91 of the Constitution Act, 1982 gives Parliament the exclusive right to make laws respecting "navigation and shipping" (s. 91(10)) and "seacoast and inland fisheries" (s. 91(12). Under these powers, Parliament has enacted a Navigable Waters Protection Act whereby structures in navigable waters are regulated. The Fisheries Act provides for fish habitat protection as well as for the prevention of water pollution harmful to fish. There is a federal Department of Fisheries and Oceans which administers this Act. As well, the federal Department of the Environment takes responsibility for monitoring and enforcing water quality measures. These federal statutes and mandates are described more fully in the following chapters.

With respect to water resources crossing boundaries within Canada, or crossing boundaries with the United States, Parliament has special legislative powers. Under s. 92(10)(a), Parliament can

legislate with respect to works and undertaking that cross provincial boundaries such as canals, pipelines or high voltage transmission lines. Under the "trade and commerce" clause in s. 91(2), Parliament can legislate with respect to interprovincial and export trade. With respect to upstream and downstream rights and obligations, the situation is clearer at the international level than within Canada. The International Boundary Water Treaty, entered into on Canada's behalf by Great Britain prior to 1931, provides rights in favour of the citizens of one state harmed by activities in the other, and creates an International Joint Commission to resolve disputes between Canada and the United States when issues are referred to it. But there is no explicit regime governing upstream and downstream rights and obligations within Canada in the case of a river like the Yukon River crossing from one province to another or to a territory. The courts in Canada have not yet had to meet the issue directly; and in the absence of court decisions, there is no constitutional law specifying rights and obligations. The subject has been recently examined in the case of the Mackenzie River Basin by a conference entitled Water Policy for Western Canada: The Issues of the Eighties (Univ. of Calgary Press, 1983).

In the case of water use planning, while primary responsibility rests with a provincial legislature and government, the Parliament of Canada has provided for interjurisdictional planning efforts under the Canada Water Act. The Yukon River Basin Study, under which this study was commissioned, is based on an agreement made pursuant to the Canada Water Act. While normally planning proceeds on the basis of agreement, the Act provides for unilateral federal water planning and management in certain cases where a water resource crosses a provincial boundary. The constitutional validity of this provision has not been tested as

yet. It is thought that it could validly override provincial planning and management under the opening paragraph of s. 91 of the Constitution Act, 1982, which authorizes Parliament to make laws for the "peace, order and good government" of Canada. But Canadian courts have interpreted this part of the constitution as requiring a national emergency or at least a matter of urgent national concern before it can be used by Parliament to legislate in a field otherwise assigned to the provinces.

It is obvious that other federal statutes which deal with aspects of water use and management can come into conflict with provincial statutes allocating water rights and regulating water uses When such conflict occurs, not just in an abstract sense, but in an operational one, a validly enacted law of Parliament will prevail over the conflicting provincial law. But the constitutional assignment of legislative powers in the case of water resources leaves the central core of responsibilities with the provinces, subject to overriding federal powers only in the relatively specific areas of shipping, navigation and protection of fisheries.

The Yukon Territory

As previously mentioned, the Yukon Territory has not yet achieved provincial status. The legal significance of this fact is that the Yukon is directly part of the domain of Canada, subject to law-making in all respects by the Parliament of Canada, and with its natural resources owned by Her Majesty in the right of Canada. Given these circumstances, the Yukon Territory has virtually no legal status with respect to water resources in the territory.

Parliament created the Yukon Territory in 1898 by its own legislative act. Currently, that statute is the Yukon Act (R.S.C. 1970, c. Y-2). Its many amendments (1970 (1st Supp.) c. 48; 1972, c. 17; 1974, c.5; 1976-77, c.25, 28, 34; 1980-81, c.47) indicate the increasing responsibilities that have been conferred on the Commissioner in Council to enact laws and administer a territorial government. Consequently the Yukon legislative assembly, elected on a party basis with a Government Leader and a Leader of the Opposition, sits in annual sessions to pass laws as the Commissioner in Council. But these laws must be seen as made under powers delegated by Parliament rather than as laws made under an independent constitutional authority. This delegate status is reflected in the fact that laws made by the Commissioner in Council are subject to disallowance by the Governor in Council (the federal cabinet). Also, the Commissioner, himself, is subject to instructions by the Governor in Council or by the federal Minister of Indian Affairs and Northern Development.

Under this delegated authority, the Yukon Territory can make laws dealing with most of the subjects, such as local government, public health, highways and education, that provinces can deal with under the Constitution Act, 1982. The major exception is that the government of Canada has retained ownership and control of natural resources and Parliament has not delegated to the Yukon Territory any legislative powers with respect to them, except in the case of wildlife. In this case, the Commissioner in Council for the Yukon Territory can enact laws for 'the preservation of game in the Territory." As well it can levy taxes on furs or portions of fur-bearing animals shipped out of the Yukon. But with respect to all non-renewable resources, and with respect to renewable resources other than game, Parliament remains the sole source of legislative enactments.

In the case of water resources, Parliament has enacted a statute called the Northern Inland Waters Act. It plays the same role in the Yukon Territory as do the Water Act and the water pollution provisions of the Waste Management Act in British Columbia. These statutory provisions are described in more detail in the following chapters. In the Territorial Lands Act, Parliament has enacted a provision reserving to the Crown the beds of all lakes, rivers, and streams, as well as a 100-foot way leave along water courses. Together with a provision in the Northern Inland Waters Act vesting all water rights in the Crown, they create a situation in the Yukon Territory alike to that in British Columbia whereby continuing government ownership of the water resources and their immediate land environment is a cornerstone of water resource policy. The only difference in the Yukon Territory is that these ownership rights are not territorial rights but rights of the central government in Ottawa.

Another law of Parliament that is designed specifically for the Yukon Territory and directly affects the water resource is the Yukon Placer Mining Act. Also water resources in the Yukon Territory, like provincial water resources, are subject to Parliament's general laws such as the Navigable Waters Protection Act and the Fisheries Act.

In the Yukon, a case of conflict between, for example, a water quality condition in a licence issued under the Northern Inland Waters Act and a regulation made under the Fisheries Act would not be resolved by constitutional rules about the paramountcy of a valid federal law over a conflicting provincial one, but, because they are both statutes of the Parliament of Canada, by seeking to find the intention of Parliament manifested in the words of the statutes. In the example of

the water licence, a provision in the Northern Inland Waters Act specifically states that water quality conditions established under the Act must not conflict with Fisheries Act regulations. Conflicts between different federal statutes are particularly acute in the case of placer mining where provisions of the Yukon Placer Mining Act must be reconciled with the Northern Inland Waters Act, the Fisheries Act and the Territorial Land Use Regulations. These conflicts are analyzed in the companion study entitled An Assessment of Legal and Administrative Arrangements Related to Placer Mining in the Yukon River Basin.

One can sum up with respect to the water resources of the Yukon River Basin by saying that powers respecting the basic allocation and management of water rights in the British Columbia portion of the basin reside in the legislature and government of the province, while in the Yukon Territory portion of the basin these powers reside in the parliament and government of Canada. Overriding in all parts of the basin are certain federal laws and responsibilities that affect water use, particularly in the categories of shipping, navigation and fisheries.

It would seem as if the legislature and government of the Yukon Territory have no voice in these matters. In a formal, legal sense, this is largely true. But the delegated law-making powers of the Territory do give competence to deal with certain matters affecting water resources. For example, public health ordinances deal with safe water supplies for communities. A Land Use and Development Act of 1982 (not yet proclaimed in force) establishes a territorial land planning regime which could at least affect the lands and, incidentally, the waters, that Ottawa transfers to territorial administration. But, much

more importantly, political commitments have been made to transfer increasing ownership and control over natural resources from Ottawa to the territorial government. This policy is presently exemplified in a recently signed Land Use Planning Agreement whereby the Government of Canada has agreed to accept the Government of the Yukon Territory on an equal footing for land use planning purposes. This land use planning process, and how water use planning may be affected by it, is examined in the companion study entitled Water Management in the Yukon Territory: Integration With Land Use Planning.

Native Claims

In the Yukon Territory there is a comprehensive aboriginal claim which the federal government has recognized under its native claims policy. The negotiations, which have been underway with the Council for Yukon Indians since the 1970's are now nearing conclusion, with agreement reached on most of the issues required to complete a comprehensive settlement. The Government of the Yukon Territory has taken part in the negotiations as well as the federal government, there being a general understanding that when the comprehensive land claim settlement is achieved, the two governments can then address issues leading to increased self-government by the Territory, including the transfer from Ottawa to the Territory of increasing ownership and control of natural resources. Water resources are likely to be involved at a relatively early stage in any evolutionary shifting of natural resources ownership and control to the Territory.

The comprehensive land claim settlement may not directly affect water resource rights and administration even in the case of lands in

the Yukon which are transferred under the settlement to native ownership. We understand that under the proposed settlement terms, water rights in native lands, including the beds and shores of lakes, rivers and streams, will remain vested in Her Majesty in Right of Canada and subject to the provisions of the Northern Inland Waters Act for licensing water rights and regulating water uses. Consequently, water resource policies adopted in the Territory will remain of vital significance to native people. This fact is reflected in the provisions of the proposed settlement whereby the Council for Yukon Indians will be entitled to nominate 25% of the membership of important policy tribunals such as the Land Use Planning Commission to be appointed under the new land use planning process.

II. Coordinated Water Resource Planning and Management

Under existing legal and administrative arrangements there are several ways in which plans for management and use of water resources can be formally coordinated. These include two procedures authorized by the Canada Water Act, a procedure provided for in the Northern Inland Waters Act, a limited degree of coordination resulting from employment of the Federal Environmental Assessment and Review Process, coordination within the British Columbia part of the Basin by the B.C. Cabinet Environmental and Land Use Committee and the B.C. procedure fo strategic environmental planning under the Environment Management Act. In addition, a new land use planning process is being introduced into the Yukon Territory. The potential integration of water management planning with this land use planning process is the subject of a case study entitled Water Management in the Yukon Territory: Integration With Land Use Planning, which is a companion study to this overview of legal and administrative arrangements for Yukon River Basin water management.

General

Canada Water Act -- Water Management

Since the enactment of this legislation a number of coordinated studies have been undertaken, the latest of which is the Yukon River Basin Study, which has sponsored this report. Such studies usually concentrate on a single major watershed.

Usually the federal Minister of the Environment, with Cabinet approval, negotiates an agreement with the other affected provincial and territorial jurisdictions governing the terms of the investigation, including apportionment of the costs, a time schedule, a definition of jurisdictional responsibilities, and a specification of management arrangements. Implementation of the agreement is assigned to a board composed of federal, provincial and territorial representatives. Federal leadership in organizing such a study is generally taken by the Inland Waters Directorate of Environment Canada.

Once agreement is reached, a budget decided upon, and a board appointed, an executive director is selected who, operating under the board's direction, develops and initiates specific programs of investigation and planning. In particular, the quantity, quality and uses of the water in question are examined. Individual studies may be undertaken by task groups composed of agency personnel from the various jurisdictions, by an individual agency, or by consultants employed by the study board. The individual studies are coordinated by the executive director and a small staff and provide the basis for a final report by the board. This takes the form of a management plan, concentrating on the conservation and utilization of the waters.

The final report on such an investigation may lead in turn (but not necessarily) to an implementation agreement. For example, such an agreement was worked out between the federal and B.C. governments following the Okanagan Basin Study. It provided for a number of implementing actions by the B.C. government and joint federal-B.C. financing of a number of structural measures recommended by the Study.

An implementation agreement could provide for a continuation of coordinated planning but so far this has not been done.

The federal government is authorized by the Canada Water Act to develop (but not implement) management plans without reaching agreement with other jurisidictions where the waters are (a) federal only (b) international (c) involve more than one province or territory or (d) there is a significant national interest at stake and agreement on a joint study by federal and provincial/territorial governments cannot be reached. To date the federal government has not initiated a basin wide study in the absence of agreement with provincial/territorial jurisdictions.

Canada Water Act -- Water Quality Management

Part II of the Canada Water Act authorizes the designation of water quality management areas and the establishment of a water quality management agency for such an area. The deposition of wastes in waters within a water quality management area is prohibited except under such conditions as are determined by the agency for the area.

The Act allows the designation of water quality management areas and the establishment of management agencies through joint agreement of federal and affected provincial/territorial jurisdictions. If it is not possible to reach agreement on joint action, the federal government may proceed on a unilateral basis but only if water quality management of the river in question is a matter of urgent national concern. The constitutional validity of this is uncertain, as the issue has not been judicially tested.

To date no water quality management areas have been designated under the terms of Part II of the Canada Water Act. Therefore, no detailed procedures for the designation of such areas and for establishing and operating a management agency have been developed. Presumably the federal government in cooperation with the territorial government, or unilaterally, could, for example, designate water quality management areas in the Yukon and establish a management agency or agencies if water quality conditions posed a significant problem.

Yukon Territory

Northern Inland Waters Act

The various parts of this Act could, if used in concert, provide for water planning in the Yukon by the Yukon Territory Water Board. Regulatory powers under the Act have already been exercised to establish water management areas by dividing the territory into major watersheds. Water uses have also been classified but, in the absence of conflicts, priorities among the various classes have not yet been determined. If this step were taken in conformity with the objects of the Board, which are to conserve, develop and utilize territorial water resources to provide optimum benefits to all Canadians and to territorial residents in particular, the effective result would be akin to fairly thoroughgoing water management. The further powers under the Act to reserve territorial lands from disposition to protect the water resource, and to reserve water rights in an area to allow comprehensive planning, would aid this object. If necessary the Board can hold public hearings and conduct investigations on these matters.

Environmental Assessment and Review Process (EARP)

EARP is based on decisions of the federal cabinet. It is a two-stage process for screening and reviewing the environmental impact of projects initiated by federal departments or agencies (but not Crown corporations) or which are federally assisted, e.g. through provision of lands or financing. If the initiator's own screening assessment indicates that there are potentially significant environmental effects from the project it is given a full review under the direction of the Federal Environmental Assessment and Review Office (FEARO). Where the significance of these effects is unknown, an Initial Environmental Evaluation (IEE) is conducted under EARP guidelines. This can lead to the project proceeding, subject to mitigating measures and FEARO scrutiny, or to a full blown EARP review.

A project submitted to FEARO for review under EARP is referred to an independent Environmental Assessment Panel for public review. This body has five to seven members, some of whom may be federal civil servants. The latter are appointed by the Executive Chairman of FEARO (who may also chair the Panel): the remainder are appointed by the Minister of the Environment. The panel, with technical assistance from FEARO and public comment, develops guidelines for an Environmental Impact Statement (EIS) which is then prepared by the initiator and submitted for review by government and the public.

Review of the EIS is followed by public hearings in the area affected. Recommendations as to disposition of the proposal are then prepared, focussing on mitigation or prevention of adverse effects, and

are submitted to the Ministers of the Environment and of the initiating department for disposition.

EARP's limitations are that it has no statutory basis, that it does not apply to projects in which the federal government has no direct or indirect interests, and that the process depends on the initiator making a proper screening evaluation and/or IEE. Any major development in the Yukon basin (e.g. a pipeline or hydroelectric power project) would require federal participation, given that most territorial lands are federally owned. Such a project, with implications for land and water management, would probably be reviewed under EARP. The Alaska Highway Pipeline was reviewed for this reaso

British Columbia

Environment and Land Use Committee (ELUC)

This is a committee of the B.C. cabinet, created under an Act of the same name. The committees duties are to make recommendations to Cabinet on "any matter relating to the environment and the development and use of land and other resources." Water, as a natural resource which is interdependent with land, is thus one factor which would be considered. ELUC may conduct public inquiries, and its recommendations can lead to Cabinet making such orders as it considers necessary or advisable, notwithstanding any other Act or Regulation. Broad, effective water planning in B.C. is thus possible in the context of environment and land use. This potential has been aided by a process developed under the Environment Management Act.

Strategic Environment Planning

This process was developed under the Environment Management Act, which gives the Minister of Environment wide powers to develop and implement environment and resource management plans in B.C. With this authority, water management plans have been developed for parts of the province, which is divided (by major watersheds) into Resource Management Regions. Each of these is subdivided into Strategic Environmental Planning Units, one of which (the Atlin-Taku) contains the Yukon headwaters.

The process begins with an evaluation of the quantity and quality of bodies of water in the unit, as well as the uses to which they are currently put and their potential for various uses. On the basis of this information future uses in the various parts of the unit are given priorities. This allocation process is based on making the best use of the available water. After it is complete, water licences and waste management permits are to be issued by the Ministry of the Environment according to the determined priorities.

The strategic planning process is as yet, only being applied in a few of the forty-odd units into which the province is divided. It has the potential to be an effective method of maximizing water use while minimizing conflicts between users, but it is not yet being applied to the Yukon headwaters. Other areas, with intense water use and more conflicts, are receiving priority.

B.C. Utilities Commission

This body, a creature of the Utilities Commission Act, has implications for water planning in B.C. The Act defines regulated projects as those which produce, distribute or use large quantities of energy. All such projects must obtain an energy project certificate and if a public utility, a certificate of public convenience and necessity from the Commission. Before issuing such certificates, the Commission reviews the application at public hearings, if given terms of reference to do so by the Ministers of Environment and of Energy, Mines and Petroleum Resources. It then issues recommendations to Cabinet, including advice on the issuance of appropriate licences and permits under the Water Act and the Waste Management Act as well as on granting of the appropriate certificates.

The limitation of review by the BCUC is that it deals with energy projects on an individual basis. The terms of reference given to the Commission could require that the project be reviewed in the context of overall water resource management, in which event the Ministry of the Environment could prepare a water management plan and submit it to the Commission for consideration and recommendations to Cabinet concerning water use options.

III. Quantitative Allocation

Overview

A number of enactments and institutions govern water allocation in the Yukon and British Columbia respectively. The crucial statute in the Yukon is the federal Northern Inland Waters Act (NIWA), which is administered by the Water Resources Division of the Renewable Resources Section of the Department of Indian and Northern Affairs. Licensing under NIWA is the responsibility of the Yukon Territory Water Board. In British Columbia the central statute is the Water Act, administered by the Water Management Branch of the Ministry of the Environment. B.C. Water licences are issued by the Comptroller of Water Rights. Other Acts, also noted herein, are of peripheral significance. The nature of aboriginal rights to water and the impact of such rights on statutory powers of allocation are as yet unclear.

Yukon Territory - Federal Legislation

Northern Inland Waters Act -Licensing

Water allocation in the Yukon is governed by the Northern Inland Waters Act (NIWA), which was passed in 1970 and which provides an allocation process for all Yukon water rights, superseding even s.54 of the venerable Yukon Placer Mining Act. By the latter the holder of a placer claim was (formerly) entitled to the use of so much of the water flowing through his claim as was necessary for the due working

thereof. Now placer miners must apply for authorization under NIWA. The Dominion Water Power Act also had some effect on water use, but in general there was no control on water use in the Yukon before NIWA.

Under s.26(d) of NIWA, regulations may be made by the Governor in Council to divide the Yukon (and the Northwest Territories) into water management areas formed from river basins. By s.3 of the NIWA Regulations the Yukon River, its tributaries (excluding the Porcupine River) and their basins were established as Water Management Area 2. These same Regulations further defined (s.5) water uses, as is permitted under the Act. Uses include those for agricultural, conservation, industrial, municipal, power generation (at various levels), storage, and recreation purposes, but they are not given priorities, although this step is permitted by the Act.

The NIWA provides for the establishment of the Yukon Territory Water Board (YTWB), which is appointed by the Minister of DIAND. Its object is to provide for the conservation, development and utilization of water resources in the territory so as to provide optimum benefit to all Canadians and to residents of the Yukon in particular. The statute does not provide guidance for reconciling these objectives. Such conflicts must be resolved by the Board.

The basic authority of the YTWB is derived from s.3 of the Act, by which property in and the right to use all water in the Territory is vested in the Crown. Any diversion or use of water in a water management area is permitted only with the sanction of the Board, if not otherwise forbidden by another enactment. The only uses exempted from Board control are domestic uses by riparian owners and temporary

emergency uses, such as firefighting and flood control. All other uses must be licensed under s.10 or authorized by regulations under s.26(g).

Applications for licences to use water are governed by ss.11 and 26 of the NIWA and s.8 of the NIWA Regulations. Essentially the application must identify the applicant and give details of the amount and location of the proposed diversion and the use to which the water will be put. The applicant must also provide such information and conduct such studies as are needed to evaluate the qualitative and quantitative effects of the proposed use on the water management area in which it is located. The application may be made either directly to the Yukon Territory Water Board or to the Controller of Water Rights, an official of DIAND. In either case, unless the applicant specifies that he wishes the more long-term right conferred by a licence, a streaming decision is made. Applications for certain classes of low volume, short-term use are handled by the Controller as matters for which Authorizations may be issued. Other applications (for major long-term uses such as hydro, industrial or municipal uses) are directed to the Yukon Territory Water Board for disposition as licensing matters.

When determining the completeness of an application and throughout the decision-making process, the YTWB has access to technical advice from the Water Resources Division of DIAND. This expertise is sometimes supplemented by that of independent consultants retained by DIAND at the Board's request. In addition to reviewing the information presented by the applicant in terms of its engineering feasibility or its environmental effects, these advisors bring to the Board their knowledge of the watershed involved and a technical evaluation of submissions of intervenors at the public hearing.

The applicant is required to give notice in the Canada Gazette and local newspapers that he has applied for water rights. The Board, in turn, when it has declared an application to be adequate for purposes of presentation to a public hearing, gives notice of the date of the public hearing. According to the Board's Rules of Procedure this notice must appear in the Canada Gazette at least 35 days prior to the date of the hearing.

Previously the Board would consult with the applicant concerning the adequacy of the applicant's case for a licence. This procedure was challenged in the case of Yukon Conservation Society v. The Yukon Territory Water Board et al. (11 Canadian Environmental Law Reports, p. 99) on the legal grounds that, by participating in this pre-screening of applications, the Board members had disqualified themselves from providing the impartial review of the application which the NIWA requires. The public hearing requirement of the statute meant that all consideration of an application by the Board must be carried out in a quasi-judicial manner as part of the hearing process. This court decision resulted in changes in the Board's method of proceeding so that the Board no longer consults privately with the applicant as to the content of an application or the terms of a licence.

The next stage in the licensing process is the public hearing, which must be held unless no public interest is displayed within ten days before the hearing and the applicant consents to their cancellation. The Board has complete control of the conduct of the hearing, a power expressed in the YTWB Rules of Procedures. These deal with, among other things, notice provisions, procedures for making representations to the Board, a pre-hearing conference between the

parties, and finally the actual conduct of the hearings, including production of transcripts.

In addition to establishing the Board, the NIWA requires the Minister of DIAND to administer the Act. For administrative purposes the Minister has established a Water Resources Division within the Renewable Resources Section of DIAND. Enforcement of the provisions of the NIWA is through monitoring by the Regional Manager and staff of the Water Resources Division. The Board itself does not have adequate technical staff to ensure compliance with licences, and in fact has little control over enforcement.

Northern Inland Waters Act - Exempt Water Uses

Under s.26 of the NIWA extensive regulatory powers are conferred on the Governor in Council. One such power is given by s.26(g) which allows regulations authorizing water use without a licence. Formerly, section 11 of the NIWA Regulations provided for a system of authorizations whereby certain uses -- municipal use by an unincorporated area, water engineering uses or uses where the period did not exceed 270 days or the amount was not in excess of 50,000 gallons per day -- could be authorized without a public hearing. Those applications where the water use would meet the criteria set out in s. 11 of the Regulations were routinely directed to the Regional Manager of the Water Resources Division who was also designated to be the Controller of Water Rights. He would assess the application, if necessary with the aid of technical advisors. Like the Board, the Controller had to satisfy himself that the requirments of s. 10 (1) (b) of the Act had been met. The authorization was then drafted, with such

conditions attached as were deemed suitable, both regarding the quantity and location of the diversion as well as water quality standards. For placer mining operations, which comprised the majority of authorizations, these conditions were consistent with guidelines for that industry developed in the mid 1970s by the Board. (The placer mining guidelines are currently under review. They are the subject of a companion study entitled An Assessment of Legal and Administrative Arrangements Related to Placer Mining in the Yukon River Basin.)

Two types of authorization applications were dealt with: those for renewal of an existing authorization, and those which were entirely new. For the former a minimum of information was required, and as long as there was no significant change in the water use and previous authorizations had been complied with, renewal was virtually automatic. A new applicant had to fill out an "Information Sheet for Water Use Application," which gave details about the operation, the body of water to be used, how it was to be used, and proposed methods of minimizing environmental impacts to comply with the placer mining guidelines.

The authorization process was an expeditious and inexpensive method of approving certain water uses. But its legality was challenged before the Federal Court of Canada in The Dene Nation v. The Queen (Feb. 14, 1984, not yet reported) where Madame Justice Reed held that s. 11 of the NIWA Regulations exceeded the statutory authority given in s. 26(g) of the Act to make regulations authorizing the use of waters without a licence. Her reasoning was that the authorization system established by s. 11 amounted to an illegal sub-delegation to the Controller of the discretionary powers conferred on the Board by the Act. Clearly the use category "not exceeding 270 days" was illegal

because s. 26(g) dealt only with rate or quality factors in authorizing uses without a licence, and not with time as a factor.

Immediately following this decision (Feb. 7, 1984 -- before the reasons for judgement were issued), the federal Cabinet passed a new s. 11 of the NIWA Regulations which simply repeals the former s. 11 and provides that water may be used without a licence for municipal purposes by an unincorporated settlement or a construction camp, for water engineering purposes or for a rate not in excess of 50,000 gallons per day (SOR/84-157). This new s. 11 therefore dispenses with the authorization system and requires water users to judge for themselves whether a licence is required in the circumstances of the case. If they conclude correctly that no licence is required, they may conduct their water use activity without any regulation by the Board under the Act.

This new s. 11 of the NIWA Regulations is thought to be a temporary expedient to cover existing authorizations. The Honorable John Munro, Minister of Indian and Northern Affairs, has stated that it is the government's intention to introduce amendments to the Northern Inland Waters Act to Parliament on an expedited basis to clarify the role of the Water Board in licensing and authorizing matters (CBC Whitehorse News Summary, Feb. 20, 1984). Unless such action is taken there will be considerable confusion with respect to placer mining operations in the 1984 season because the water use by placer operations was previously authorized without licences under the category of "uses not exceeding 270 days per year." Now that this category has been dropped from s. 11 of the NIWA Regulations, it would

appear that all placer water uses will require licensing under the Act with public hearings in each case where these are requested. Only an amendment to the Northern Inland Waters Act could dispense with the hearing requirement.

National Parks Act

A second federal statute with potential effect on water allocation on the Yukon River is the National Park Act. It applies to waters within the boundaries of National Parks, of which there is only one (Kluane National Park) even partly within the Yukon Basin, although Parks Canada currently intends to create several more parks in the north, some of which may be in the Basin.

Under s.6(1) of the Act, lands within a Park cannot be disposed of, used, or occupied except under the authority of the Act. This makes possible indirect control of water use, a power explicitly set out in s.7. By it, regulations can be made for the use of water in parks generally, as well as for specific purposes such as the establishment and control of water supplies and sewage disposal. This power is exercised in the National Parks General Regulations, s.17 of which prohibits obstruction or diversion of water in a park without a permit. S.18 allows permits to be issued for periods of up to ten years for railway, domestic or commercial purposes as long as the method of diversion is satisfactory. As well, temporary permits for emergency purposes are allowed when necessary.

Table 1. Yukon Territory - Quantitative Allocation of Water

Nature of Management Action	Pertinent Legislation	Agencies and Responsibilities	Procedural Steps
Authorization to use water	N.I.W.A. s.26(g)	Water Controller (= head, Water Resource Section, DIAND)	1. Receives all applications to use water, dividing them into those for licenses and those for authorizations. 2. Assesses authorization application according to type of use, quantity of use (<50,000 gpd) or duration (<270 days). 3. Authorization approved, with conditions set in consultation with DFO.
		Yukon Territory Water Board	1. Recommends standards for determining authorized uses. 2. Monitors authorization process
Licence to use water	N.I.W.A. ss. 3, 10-13 15, 22-25	Yukon Territory Water Board	1. Receives licence application from Controller. 2. Assesses compliance with administrative/technical requirements. 3. Holds public hearings. 4. Develops conditions and drafts licence in consultation with staff. 5. Licence granted (or refused); sent to MIAND for approval. 6. Oversees renewals, amendments, transfers, cancellations.
		Water Controller	1. Sorts applications, forwards those for licences to Y.T.W.B. 2. Provides Board with technical assistance.
Monitoring compliance	N.I.W.A. ss.29-31	Inspectors, Renewable Resources Section, DIAND	1. Monitors compliance with licences, authorizations and NIWA under direction of Controller.
Unlicensed uses	N.I.W.A. s.4	n/a	1. Domestic and emergency uses need not be licensed or authorized.

British Columbia

Water Act

The primary statute governing allocation of water rights in B.C. is the Water Act, which is administered by the Water Management Branch of the Ministry of the Environment. As noted previously, property in and the right to use water in the province is vested in the Crown (s.2), save for rights established under the statute. Licences can be obtained for a variety of beneficial uses, which, as defined in s.1, include conservation, domestic, fluming, hydraulicking, irrigation, land improvement, mining, power, river improvement, storage or waterworks purposes.

Generally (s.6) licences can only be obtained by persons with a property or statutory interest and who intend to use the water for one or more of the permitted uses. Water rights are not available independently of a given purpose; they must be joined to a beneficial use. Applications for licences are governed by s.8. The applicant must file his application with the Comptroller of Water Rights (a quasi-judicial official appointed under s.28 of the Act), together with the prescribed fees and such plans and other information as is required. Appropriate public notice of the application must then be given, while the Comptroller gives 30 days notice to the Deputy Ministers of Agriculture, Environment, and Lands, Parks and Housing.

Upon notice of the application being given, a licensee, riparian owner or applicant for a licence who considers his rights would be prejudiced by the granting of the application, or the previously mentioned Deputy Ministers, can file (s.9) an objection to

it. Riparian owners presumably include downstream transboundary owners, such as those in the Yukon below the headwaters of the Yukon River; the Act does not specifically exclude them, nor does common law. However, it can be argued that since provincial statute law does not ordinarily have effect outside provincial boundaries, the reference to "riparian owners" is intended to apply only to such owners in B.C. The comptroller has the authority to decide if any objection warrants a hearing; if so, the applicant and intervenors are entitled to be heard and notified of the result.

This hearing, however, is not likely to be as extensive as a hearing under the NIWA. A hearing under the B.C. Water Act is not a public hearing; only interested parties can make submissions, and these are usually limited to technical matters. As well, the comptroller hears and decides the matter himself, without any requirements of ministerial approval, perhaps reflecting the narrowness of the issues canvassed at B.C. hearings.

Regardless of any objections, the Comptroller may take such action with respect to the application as he sees fit. Specifically, he can require more information, refuse the application, grant or amend it (either conditionally or finally), determine the priority or appurtenancy of any licence, and require security if that is in the public interest. Usually, the initial licence is made conditional; a final licence (s.11) authorizing the actual location and quantity of the diversion is then issued once the works are completed. If the terms of the conditional licence are fulfilled it is probable that the courts would find that the comptroller has no discretion and that a final license must be issued. Also, a licence cannot contain water

quality provisions, unlike those under the NIWA, as this matter is dealt with separately under the Waste Management Act.

The Comptroller also has broad powers (s.15) to amend a conditional or final licence. All persons whose rights would be affected must be notified, and any objections considered, before the Comptroller, after notifying objectors of his decision, amends the licence. It is unclear whether consideration of objections would require a hearing; this is probably at the discretion of the Comptroller. Amendments to a licence can be made to extend time requirements, correct errors, remove inconsistencies with the Act, extend its term, change the quantity of the diversion to conform with the actual amount used, authorize additional works, or allow a different use from that specified. Either of the last two changes must be preceded by 30 days notice to the Deputy Ministers of Environment and of Lands, Parks and Housing.

The Comptroller has extensive powers to suspend or cancel a licence (s.20). Essentially cancellation can only follow failure to comply with either the terms and conditions of a licence, the Act or regulations, or an order of the Comptroller or a Water District Engineer. Where cancellation is intended, a licensee has the right to be notified and to object at a suitable hearing. If the alleged grounds for cancellation are substantiated, partial or complete cancellation can ensue as the Comptroller considers proper.

The rights obtained by a licensee are by definition (s.4) those set out in the licence. In addition, however, a licensee can obtain a permit (s.23) to construct authorized works on, or to flood, Crown land. Further still, he can expropriate (ss.24-27) any land reasonably

required for either the construction of the authorized works, the prevention of pollution, or, with the permission of the Cabinet, for flooding.

It is an offence (s.41) to divert water without a licence, or to fail to comply with a licence. It is not an offence, however, to use unrecorded water (i.e. water for which there is no licensed user) for firefighting, domestic, or mineral prospecting purposes. Also by s.7 one can use water on a non-recurring basis for a term not exceeding six months if the Comptroller has approved the use, although records of the diversion must be kept. Temporary and/or minor users of water thus need not be licensed.

A temporary approval under the B.C. Water Act is quite different from an authorization under the NIWA. Approvals under the former are wholly statutory in nature; there is little discretion in deciding which uses are suitable for approval. Authorizations under the latter are based on regulations, and as noted earlier there is much discretion in their application. The intent of both approvals and authorizations is similar, but the latter are more widely used than the former.

A licence under the Water Act is appurtenant to land or the undertaking for which it is obtained. Any disposition of that land or undertaking also transfers the attached water licence. There must be such notice of the transfer as the Comptroller directs, and it may only be made on such terms as he considers proper.

Besides the Comptroller, a variety of other administrative officials are appointed under the Act. The most important of these are

the engineers, who are appointed for each water district. Their duties are to monitor and enforce compliance with the Act and any licenses or approvals under it. They have wide powers of inspection and regulation, as well as a fair amount of discretion in their duties. Unfortunately there are insufficient engineers to supervise local water users and to enforce water licence requirements.

Appeals from decisions of the Comptroller or of an engineer are disposed of under ss.38-40. Generally, an engineer's decision is appealable (within 15 days) to the Comptroller, while an appeal from a decision of the Comptroller is heard by the Environmental Appeal Board under the Environment Management Act. An appeal from cancellation of licence, being a more serious matter, is heard by the B.C. Court of Appeal.

Given that water use is intense in parts of B.C., conflicts at times arise between licensees. Settlement of such disputes is governed by s.12, which sets out that where there are two licences authorizing diversion from the same stream, the earlier takes precedence. If two licenses have the same date, the rights under them have precedence according to the ranking of the respective uses, which range from domestic and waterworks uses (at the top) to land improvement purposes.

Park Act

The B.C. Park Act would be relevant to water allocation in provincial parks in the Yukon Basin. Under s.9 of that Act, no natural resource in a park can be granted or exploited except as authorized by a valid and subsisting park use permit. A permit can only be issued if

the development, improvement and use of the park will not be hindered by it. The procedure for granting park use permits is governed by s.24. If the permit authorizes the removal or exploitation of any natural resource (such as water) or any activity incidental to such, application must be made for it in writing, with appropriate sureties and fees paid, including possibly a rehabilitation deposit. Use of water in a provincial park is further controlled by the regulatory part of the Act, by which regulations can be made for the administration, protection and development of parks.

Table 2. British Columbia - Quantitative Allocation of Water

Nature of Management Action	Pertinent Legislation	Agencies and Responsibilities	Procedural Steps
License to use water	Water Act ss. 1-6, 8-27	Comptroller of Water Rights (Water Rights Branch, MoE)	1. Application filed, together with plans, fees. 2. Assessed for conformity with administrative and technical requirements (e.g. beneficial use by riparian) 3. Notice of application to public and to certain deputy ministers. 4. Hearings can be held (discretion) if other affected users object. 5. Comptroller takes such action as he deems fit: granting a licence (with appropriate conditions) or refusing it. 6. Oversees amendment, suspension, cancellation of licences.
		Engineers, Water Rights Branch	1. Oversee compliance with licences
Approval of water use	Water Act s. 7	Comptroller	1. Non-recurring uses lasting less than six months can be approved on conditions that are considered advisable
Monitoring water use	Water Act ss.28-30, 33-37, 41	Engineers; water bailiffs	1. Oversee and enforce compliance with the Act, licences and approvals.
Appeals	Water Act ss. 38-40	Comptroller Cabinet Court of Appeal	1. Hears appeals from engineer's decisions. 2. Hears appeals of comptroller's decisions. 3. Hears appeals of cancelled licences.
Resolving conflicting uses	Water Act s. 12	Comptroller	1. Licences take precedence, first according to their date and second according to the priority of the use as set in the Act.

IV. Regulation of Water Quality

Overview

A variety of federal and provincial legislation and agencies regulate water quality in the Yukon Basin The role of each is not clearcut; legislation often overlaps within a jurisdiction as well as between jurisdictions, while institutions must apply the legislation without exceeding their authority or conflicting with the activities of other institutions. There are three main categories of legislation and institutions relating to water quality. The first is federal legislation and actions impinging on the Yukon River in both British Columbia and the Yukon; the second, federal and territorial legislation and actions which only have effect in the Yukon; and lastly actions of the provincial government in British Columbia. The actions of any may affect downstream water quality in the Yukon.

Federal Legislation

Fisheries Act

The primary federal statute with regard to the water quality of the Yukon River Basin, and indeed all Canadian waters, is the Fisheries Act. This legislation derives its authority from s.91(12) of the Constitution Act, 1867, which allocates responsibility for "sea coast and inland fisheries" to the federal parliament. This includes the protection, maintenance and enhancement of the fisheries, as well as necessarily incidental activities. The water quality provisions of the Act have the explicit goal of protecting the fishery from pollution, but incidentally achieve the broader goal of general pollution control.

The primary pollution prevention section of the Fisheries Act is s.33(2), which prohibits the direct or indirect deposit of any deleterious substance in waters frequented by fish. A deleterious substance is defined by s.33(11) to include any substance or effluent which, added to water, would so degrade or alter its quality as to make it deleterious to fish. Regulations under the Act further prescribe some individual deleterious substances. Offences under the Act are of strict but not absolute liability which means in legal terms that it is a defence to a charge under s.33(2) if the accused can establish that due diligence was used to avoid or to prevent the polluting activity. Deposits authorized by regulations under the Fisheries Act, or by any other federal Act, are not subject to the general prohibition of s.33(2).

The Act is generally reactive rather than managerial in nature. It deals with situations as they occur, and after the event. In some cases effluent standards have been established for certain industries, but there is no basis for overall water quality management. Section 33.1 authorizes a permit scheme but it has been infrequently used. It provides that a proponent of an operation likely to result in deposit of a deleterious substance may supply the Minister with plans and information on the undertaking and its probable consequences, as well as on mitigating measures. The Minister reviews and assesses the material, with the proponent having a reasonable opportunity to make representations. The Minister may then make an order approving the project, with or without modifications, or restricting it.

At present, the Fisheries Act pollution prevention provisions are administered in the Yukon and B.C. by the Environment Protection

Service (EPS) of the Department of the Environment (DoE), by agreement with the federal Department of Fisheries and Oceans (DFO). In B.C. E.P.S. interacts with provincial waste management and wildlife agencies.

Canada Shipping Act

The Canada Shipping Act falls under the authority of s.91(10) of the Constitution Act, by which shipping and navigation are the exclusive responsibility of the federal government. Part XX, dealing with shipping pollution, is applicable to water quality on the Yukon River, which is historically a navigable river, insofar as it may be affected by shipping. S.727 defines pollution in the same way as the Fisheries and Water Acts, namely as any substance or effluent which added to waters would degrade their quality to an extent detrimental to their use by man. Oil is specifically included, as well as any substance prescribed by regulation.

Discharge of any given pollutant may be prohibited by regulations, and any emission contrary to them must be reported by the master of the vessel to a pollution prevention officer. S.730 permits control of all aspects of handling, storage and carriage of pollutants, particularly in bulk, in ships. This power is delegated by s. 732 to pollution prevention officers, who have authority to investigate ships and their cargo and to administer their movements in accordance with the purpose of this part. In addition to the general prohibition against discharges, shipowners and owners of any bulk pollutants that are carried are civilly liable (s.734) for the costs of any prevention or cleanup necessary as a result of spillages as well as incidental

property damage. Such actions are heard in Federal Court, with monetary liability to a certain extent limited. To ensure that any award would be collectible, the vessel owners are required to furnish evidence of financial accountability.

Finally, the Shipping Act establishes a Maritime Pollution Claims Fund, financed out of a surcharge on bulk oil carried within Canadian waters. A judgment or settlement of a claim for damage from shipping pollution under s.734 may be settled by the Administrator of the Fund when some or all of the sum remains unpaid despite reasonable attempts to collect it. Similarily, there can be recovery for damages caused by discharge from an unidentified ship. All losses or claims are assessed under s.746.

The Canada Shipping Act has little applicability at present to water quality control of the Yukon River. Currently the only shipping on the Yukon is recreational, primarily small boats and rafts, while the Shipping Act pollution prevention provisions are aimed at commercial shipping, in particular carriers of bulk pollutants such as oil. There is, however, some potential for a revival of commercial shipping on the Yukon, either for industrial or, more likely, tourist purposes, so the Act's future application cannot be ruled out. Technically it could also govern current light recreational users, but the potential and actual pollution attributable to them is minuscule.

National Parks Act

A final federal enactment affecting the water quality of the Yukon River is the National Parks Act, which allows regulations to be

made to prevent or remedy any obstruction or pollution of waterways within national parks, which in any case are generally protected from despoliation. At present only the headwaters of the White and Donjek Rivers, both Yukon tributaries arising in the wilderness of northwestern Kluane National Park, are covered by this section. It could however have a great deal of effect, especially if applied to new northern parks near centres of industry or population, and hence with greater pressure on their water resources.

Yukon Territory - Federal Legislation

Northern Inland Waters Act (NIWA)

The federal legislation most relevant to territorial water quality control is the Northern Inland Waters Act. It defines waste on the same basis as other federal enactments, i.e. as any substance or effluent which, added to water, would so degrade or alter the quality of the water as to be detrimental to its use by man. All water is vested in the Crown, and any diversion or use (including waste disposal) of water in a water management area created pursuant to s.26(d) of the Act must be licensed or authorized under the Act. Such approval does not immunize the user against other applicable federal legislation (e.g. the Fisheries Act) unless it so states. At present the entire Yukon Territory is divided (by watershed) into six water management areas, one of which is the basin of the Yukon River.

Section 6 of the NIWA prohibits deposition of waste in any water without a licence under the Act, or under the Canada Water Act. The issue of licences under NIWA is controlled by the Yukon Territory

Water Board. The licensing procedures have been explained in detail in Chapter III dealing with quantitative allocation of water resources.

Yukon Acts and Ordinances

Several Yukon ordinances (acts), passed under authority delegated to the territory by the federal government, are relevant to water quality control. The first is the Area Development Ordinance, under which the Commissioner can designate development areas. Having done so he can (among other things) make regulations with respect to public health (s.4), including the supply, treatment and purification of water and the disposal of garbage and sewage. This authority would allow limited control over water quality, so long as the main purpose of any regulation was the protection of public health.

The Public Health Ordinance itself gives much wider powers to regulate matters in this field. S.3 allows general regulation to control and prevent the spread of communicable disease, as delineated in its subsections. These regulations can deal with water supply, drainage, toilets and garbage; the construction and maintenance of sewage facilities; water supply systems; and the general prevention of water pollution. Fairly complete control of all aspects of water supply and sewage disposal, and hence incidentally of water quality in general, is thus possible under the ordinance.

Table 3. Yukon Territory - Regulation of Water Quality

Nature of Management Action	Pertinent Legislation	Agencies and Responsibilities	Procedural Steps
Control of waste deposits	Fisheries Act s. 33	Environment Protection Service DoE	1. Deposit of substances deleterious to fish prohibited, except in accordance with Act. 2. Some types/concentrations of deleterious substances prescribed by regulations. 3. Proponent submits plan for review. 4. After assessment and interaction, acceptance, modification, or rejection. 5. Prior approval in principle does not commit EPS; proponent may still be prosecuted. 6. Unapproved activities can be approved, ordered modified or shut down, or prosecuted.
Fish habitat protection	Fisheries Act ss.31 and 33	Department of Fisheries and Oceans	1. Alteration, disruption or destruction of fish habitat forbidden; unless authorized by regulations or Minister. 2. Proponent submits plan of operation for review. 3. Assessment by DFO (with interaction), then acceptance, modification or rejection. 4. Prior approval in principle doesn't commit DFO; proponent may still be prosecuted. 5. Unapproved activities can be approved, ordered modified or shut down, or prosecuted.
Licence to use water	N.I.W.A. ss. 6, 10, 26	Yukon Territory Water Board	1. Deposit of waste without licence/authorization prohibited. 2. Water quality regulations may but have not been set under s. 26(g); standards under Fisheries Act take precedence. 3. Licence applications sent to Board by Controller. 4. Compliance with administrative/technical requirements checked. 5. Notice, then public hearings. 6. Conditions for use developed and licence drafted in consultation with staff. 7. Licence sent to MIAND for approval.
		Water Controller	1. Sorts applications, sends those for licences to Board. 2. Provides board with technical assistance.
Authorization to use water (e.g. placer mining)	N.I.W.A. ss. 6, 26(g)	Water Controller	1. Receives and sorts applications. 2. Assesses applications for compliance with administrative and technical requirements for authorization. 3. Sets standards for operation (e.g. settling ponds, suspended sediments concentration) in conformity with YTWB/DFO placer mining guidelines. 4. Approves/denies application.
		Yukon Territory Water Board	1. Can but has not set universal water quality standards. 2. Monitors authorization process.

British Columbia Legislation

Waste Management Act

The major British Columbia enactment dealing with water quality is the Waste Management Act, a revised version of the Pollution Control Act. The Act is a thorough and detailed mechanism for controlling all types of pollution - air, water, and land. The authority for this broad scope, as contrasted with the narrow purpose of the water quality sections of the federal Fisheries Act, is found in the Constitution Act, which not only grants the provinces jurisdiction over land, water and other natural resources, but also over matters generally of a local and private nature.

The Act defines waste to include, among other things, effluent, which is further defined to mean a deleterious material flowing in or out of works. What constitutes a deleterious material is not made clear; the intended meaning may be similar to a deleterious substance under the federal Fisheries Act. Pollution is however clearly set out as the presence in the environment of substances or contaminants that substantially alter or impair its usefulness.

Pursuant to s.3(1) of the Waste Management Act, no person may introduce waste into the environment, or in such a manner as to cause pollution. However, s.3(3) disallows this prohibition where the disposal is in compliance with a permit, approval, order, the regulations, or an approved waste management plan, or where the disposal is into a waste disposal system operated by a public authority. A further section prohibits discharge of domestic sewage or

waste into any body of water from any vehicle or boat except as authorized by the section.

The general topic of permits allowing the introduction of waste into the environment is covered by s.8. The issuance of a permit is at the discretion of the waste manager (administrative officers appointed on a regional basis) and is subject to such requirements for the protection of the environment as he considers advisable. The permitee can be required to modify his works, provide security, monitor the handling and disposition of the waste, make necessary studies and reports, and to handle and dispose of the waste as is deemed advisable. There is no provision, however, for public hearings or any public participation before a waste disposal permit is issued, unlike the procedure for water licensing under the NIWA. Once a permit has been issued there is a limited appeal provision to the Environment Appeal Board, under the Environment Management Act.

A second option for authorizing the deposit of waste into the environment is that of granting an approval under s.9. Such action is at the discretion of the manager and is limited to a total period (including renewals) not exceeding 12 months. There is thus no possibility of approvals being used as an alternative to the permit process, unlike authorizations under the NIWA. Any approval issued by a manager is, like permits, subject to such requirements for the protection of the environment as he deems advisable, and can include any of the conditions of s.8(1). As well, both types of application are referred to the EPS where the proposed discharge would affect anadromous species.

Placer Mining Permits in B.C.

Under the direction of the regional office of the Provincial Ministry of the Environment, a 'one-window' procedure for acquiring the necessary permits to conduct placer mining operations in the northern part of the province has been developed. The process begins with a single application to the Ministry of Energy, Mines and Petroleum Resources, which is responsible for administering the Mining (Placer) Act. One of the Ministry's duties is to designate placer streams. Several factors determine this classification, in particular the existence of any other conflicting uses and the environmental sensitivity of the stream. If the stream is designated for placer activity, as many in the Yukon headwaters are, the application is passed on to the provincial Ministry of the Environment.

The provincial MoE has developed and implemented a system for classifying placer streams according to their sensitivity. Streams can be classed as red (very sensitive), yellow, and green (not sensitive). Each class has its own effluent and operational standards, developed in conjunction with EPS and DFO. When MoE receives an application, standards are imposed depending on the classification of the stream. MoE then grants a water approval and a waste management approval, with appropriate conditions. The former must be for a non-recurrent term not exceeding six months; the latter must not exceed twelve months in duration. After these permits are issued, the application is returned to EMPR for a placer lease to be granted.

The process for granting placer mining leases and appurtenant authorizations has greatly expedited this water use activity. This is

all the more so because all concerned federal and provincial agencies concur in the standards which are imposed on an operation. An operator need only make one application, and he has the reassurance that the result will satisfy all regulators. It appears, though, that some operations are being approved on an annual, recurrent, basis, although the Water Act and the Waste Management Act do not permit this.

Table 4. British Columbia - Regulation of Water Quality

Nature of Management Action	Pertinent Legislation	Agencies and Responsibilities	Procedural Steps
Control of waste deposits	Fisheries Act s. 33	Environment Protection Service DoE	1. Deposit of substances deleterious to fish prohibited, except in accordance with Act. 2. Some types/concentrations of deleterious substances prescribed by regulations. 3. Proponent submits plan for review. 4. After assessment and interaction, acceptance, modification, or rejection. 5. Prior approval in principle does not commit EPS; proponent may still be prosecuted. 6. Unapproved activities can be approved, ordered modified or shut down, or prosecuted.
Fish habitat protection	Fisheries Act ss.31 and 33	Department of Fisheries and Oceans	1. Alteration, disruption or destruction of fish habitat forbidden; unless authorized by regulations or Minister. 2. Proponent submits plan of operation for review. 3. Assessment by DFO (with interaction), then acceptance, modification or rejection. 4. Prior approval in principle doesn't commit DFO; proponent may still be prosecuted. 5. Unapproved activities can be approved, ordered, modified or shut down, or prosecuted.
Waste management permit	Waste Management Act ss. 1, 3, 7, 8, 11-14	Waste Management Branch	1. Deposit of waste causing pollution prohibited without statutory authority. 2. Application t) deposit made to manager. 3. Permit issued at manager's discretion and subject to appropriate environmental requirements.
Waste management approval	Waste Management Act s.9	Waste Management Branch	1. Approvals can be issued for periods of less than 12 months, with such conditions as are considered advisable.
Placer mining permit ('one window'- Atlin area)	Fisheries Act s. 33. Waste Management Act s.9. Water Act s.7. Placer Mining Act ss. 6, 7.	EPS/DFO Waste Management Branch Comptroller of Water Rights Ministry of EMPR.	1. EMPR designates placer land. 2. MoE, in conjuction with DFO, classifies streams in placer areas and sets effluent standards for them. 3. Application for placer lease made to EMPR. 4. Application passed on to MoE for classification and setting of quality standards. 5. Application forwarded to Comptroller for approval. 6. Combined approval to use water/waste management approval/placer lease issued jointly.

V. Control of Water Use Activities

Overview

Many federal and provincial statutes and regulations, as well as territorial ordinances, incidentally affect or have the potential to affect water use on the Yukon River. These enactments are briefly outlined in Appendix I; further detail on some of them is contained in this section.

Federal Legislation

Navigable Waters Protection Act

The Yukon River has historically been a navigable water in its entirety, initially for commercial and more recently for recreational purposes. The Navigable Waters Protection Act, under the jurisdiction of the Department of Transport (DoT), thus applies to it. The Act prohibits the construction of any work which would substantially interfere with navigation on such a river unless the plans have been approved by the Minister of DoT prior to commencement of contruction. The project must be completed within three years of approval being granted and must be in accordance with the terms of the approval. Works constructed without or not in accordance with an approval can be removed or destroyed at the expense of the owner, although post facto approval can be granted. Finally, any lawful work can be rebuilt, repaired or altered if in the opinion of the Minister it does not thereby increase the interference with shipping.

The Navigable Waters Protection Act would have a major effect on any large scale use of the Yukon River or of such of its tributaries as are navigable. This includes most of the major hydroelectric developments proposed for the basin. Some previous hydro projects on navigable rivers (e.g. the Peace River dam in B.C.) were constructed without reference to the Act, but it is unlikely it could be so ignored in the future.

Fisheries Act

A second federal enactment with very broad implications for water use on the Yukon River is the Fisheries Act, which is administered in the Yukon by the Department of Fisheries and Oceans (DFO), in consultation with the Environment Protection Service (EPS) and the Water Resources section of DIAND. Apart from its previously discussed water quality provisions, several sections of the Act control other water use activities so as to protect fisheries. The first, s.20, provides that a person constructing any obstruction in a stream must, if required to by the Minister of DFO, construct and maintain a fishway around the obstruction to allow free passage of fish. If an efficient fishway cannot be constructed, or upstream spawning areas are destroyed, the owner can alternatively be required to finance a fish hatchery to maintain stocks. Any fishway constructed must be to Ministry specifications, and must be unobstructed and have sufficient water flow for fish to pass through safely.

During construction the owner must make such provision as is deemed necessary for the protection of fish. Half of the cost of constructing a fishway is paid by the government, except if it is

ineffective in which case the entire cost is borne by the Ministry. Finally, the owner of a dam or slide can be required to construct fish stops and diverters to prevent the destruction of fish or to provide for their ascent, and must allow sufficient water flow to protect the spawning grounds.

Navigation is also protected by the Fisheries Act. By s.22 nets or other fishing apparatus may not be placed so as to obstruct navigation, and at least one third of the width of a river must always be left open. Neither may nets be set so as to unduly obstruct the passage of fish. Obstructions such as fish guards or screens are required at any water intake or channel drawing water from Canadian fisheries waters.

The widest provisions of the Fisheries Act which affect water use are those dealing with habitat protection. S.31(1) prohibits unauthorized works or undertakings which result in harmful alteration or disruption of fish habitat. Where such a work is proposed, s. 33.1 provides that the builder may be required to provide plans and information to enable DFO to determine if fish habitat would be affected and how to mitigate any deleterious effects. The decision, made after the builder has been given a reasonable opportunity to make representations, can require modifications, restrict the operation of the work, or, if necessary, close it down.

The power to modify, restrict or close down a work that affects fish habitat is rather drastic, especially as many such works would be under the aegis of provincial governments. An example would be a large hydro project being constructed by a provincial crown corporation.

Section 33.1 (4) provides in this eventuality for consultation where possible with such provincial governments as are considered to be interested. Confrontations can thus be avoided and negotiated settlements facilitated.

Overall, through the mechanism of the Fisheries Act, the federal government has extensive powers to control water use insofar as it affects fish or fish habitat. This power would influence almost any proposed development on the Yukon River or its tributaries, particularly hydro projects and placer mining. It is more often, however, used as a basis for negotiated solutions to the problems posed by various projects, which usually proceed as long as adequate fishery protection is provided.

Migratory Birds Convention Act

This statute, enacted to carry out Canada's obligations under a Canada-U.S. treaty to protect migratory birds, has some applicability to water use on the Yukon River. It is administered by the Canadian Wildlife Service of the Department of the Environment. Under the Act, the federal cabinet is empowered to make regulations for the protection of migratory birds. Many of these birds use rivers, lakes and marshes in the Yukon as staging areas or as summer habitat. Almost any major river oriented development (e.g. flooding) could affect this habitat and so be regulated to protect the birds. Other applicable statutes, notably the Canada Wildlife Act, also contain habitat protection provisions.

Canada Wildlife Act

Under this Act, public lands may be assigned to the Ministry of the Environment where required for wildlife (s.4) or migratory bird (s.10) research, conservation or interpretation. MoE can then take such measures as are necessary for the conservation of these creatures. Wildlife and birds tend to concentrate (for biological and other reasons) in valleys, and most protected locations are in these areas. Regulations developed by the Canadian Wildlife Service under s.13 to protect wildlife habitat might therefore affect water use, but on a localized basis. The situation is similar if measures must be taken (s.9) to protect endangered species, if necessary in cooperation with other governments.

National Parks Act

A final federal statute, part of which may be applicable to water use on the Yukon River, is the National Parks Act, which only applies within national parks. It is administered by Parks Canada. Its regulatory section can be used for preventing and/or remedying any obstruction of waterways; regulating the use of water for domestic, business and railway purposes; and authorizing agreements for the development of hydroelectricity for use in the park (s.7). Thus the National Parks General Regulations specify that there can be no obstruction or diversion of water within a park without a permit. A permit can be for a maximum of ten years, must specify the purpose, location and method of the diversion, and must describe any resulting impairment of park resources. Temporary permits are available for

emergency purposes. The National Parks Wildlife Regulations also have some potential to affect water use in a Yukon River basin national park: s.4(1)(e) prohibits disturbance of beaver houses or dams, which are found only on watercourses.

Yukon Territory Federal Legislation

Territorial Lands Act (TLA)

This Act has far reaching consequences for Yukon River water use, and is administered by the Renewable Resources section, DIAND. To begin with, under the Act there is wide provision for land management and planning, which inevitably would impinge upon water use. The Territorial Land Use Regulations (TLUR) were created under this section and reflect this wide scope. By s.13(1), any material or debris deposited in a stream by a land use operation must be removed, with the channel and bed of the stream restored to their original condition. More specifically, a land use permit may include conditions for the protection of wildlife and fisheries habitat; for the protection of places of recreational, scenic and ecological value; and to protect the biological or physical characteristics of a land management zone.

Under the amended s.3.1 of the TLA, the federal cabinet can, when it deems it necessary for the protection of the ecological balance or physical characteristics of an area, set that area aside as a land management zone, if possible after consultation with the Territorial Council. Rivers are often ecologically sensitive, and this might well be used to protect part of the Yukon River. The cabinet has the further power to make regulations (s.3.2) respecting the protection, control and use of the surface in a land management zone.

Canada Oil and Gas Act; Oil and Gas Production and Conservation Act

The Canada Oil and Gas Act, enacted in 1982, replaces the former Canada Oil and Gas Land Regulations made under the Territorial Lands Act. The new Act provides for the allocation of petroleum resources in the Yukon Territory and the Northwest Territories by means of exploration agreements and production licenses, administered by a new agency called the Canada Oil and Gas Lands Administration (COGLA). Exploration activities which occur in lands in the territories are regulated under the Territorial Land Use Regulations (TLUR). Drilling and production sites are regulated under the Oil and Gas Production and Conservation Act. In the Yukon Territory, this regulation is the responsibility of DIAND. As previously explained, a land use permit issued under the TLUR can contain conditions protecting water habitat, regulations such as the Canada Oil and Gas Drilling Regulations, issued under the Oil and Gas Production and Conservation Act, are aimed at preventing waste and protecting lands and water from pollution.

Northern Canada Power Commission Act

This Act creates a crown corporation, the Northern Canada Power Commission (NCPC), for the production and distribution of power in the north, although it is not given a monopoly. The powers of the NCPC are set out in s.6, which allows it to construct, acquire and operate plants to produce power. In particular it can construct and maintain dams for storage and power purposes, flood land, raise or lower water levels, and divert water courses. These powers have been used with respect to the Yukon River and others.

Although the NCPC has a general mandate to produce energy, in practice this has meant energy produced in one of two ways: either hydroelectric or diesel generation. Several hydro projects, including those at Aishihik Lake and Whitehorse Rapids, have been constructed to meet energy demands, particularly in the Whitehorse area. The needs of isolated, smaller communities are often met through diesel generation. The subject of hydroelectric power planning is addressed in a companion study entitled An Assessment of Institutional Arrangements in the Yukon River Basin for Planning, Constructing and Operating Hydro Electric Power Facilities.

Yukon Placer Mining Act (YPMA)

The Yukon Placer Mining Act, although now subject to s.39(1) of the NIWA, originally gave persons holding a placer mining claim the right to use so much of the unappropriated water flowing through the claim as was necessary for the due working thereof. The right was also extended to hard rock miners under the Yukon Quartz Mining Act, but in both cases was extinguished with the passing of the NIWA in 1970. The placer miner's rights to use water were historically and economically entrenched, however, and hence they were able to maintain that they should not be subject to the full licensing process of the NIWA, but rather only be required to obtain authorizations. The placer miner's right under the YPMA to stake virtually any ground is still preserved, however, unaffected by the Territorial Lands Act. In effect, the placer miners water use is subordinate only to fishery needs. The YPMA is administered by the Mineral Resources section of DIAND.

Conflicts between placer mining activities and protection of fish stocks and fish habitat are currently regulated by guidelines issued by the Yukon Territory Water Board. Controversy generated by proposed new guidelines of a more stringent character led to the appointment of a committee to hold public hearings and provide recommendations to the governments as to how placer mining should be regulated. This subject is examined in a companion study entitled An Assessment of Legal and Administrative Arrangements Related to Placer Mining in the Yukon River Basin.

Dominion Water Power Act

This Act applies to all Dominion water powers, which is to say water on lands owned by Canada which generates or is capable of generating power. All potential power generating sites on the intraterritorial part of the Yukon River system are included in this definition. By s.4 the property in and the right to use Dominion water powers is vested in the Crown, while under s.5 the property in lands required for the development of water powers is reserved to the Crown. If necessary, lands required for development can be expropriated. Other sections of the Act allow joint development of several water powers to be ordered where this would be more economical; permit the Minister (of DIAND) to order surveys of streams to determine their power generation potential; and give the cabinet the power to make regulations to carry out the Act.

Regulations under s.12 can be made to control the storage and diversion of water for power purposes, and the protection of sources of water supply; to allow construction and operation or works, and for regulation of water flow through such works; for granting rights and

privileges with respect to water powers; and for the construction and acquisition by the government of regulatory, storage, or power generation works. This authority has been used to create the Dominion Water Power Act Regulations. By s.3 an application for a licence must specify the location and amount of the proposed diversion, the works to be constructed, and the power to be generated. It must be submitted to the Director of Water Power (i.e. Chief, Water Resources Division, DIAND) and published in the Canada Gazette. If objections are filed within 30 days, or at the Minister's discretion, hearings must be held. The works must be shown to be feasible (technically and financially), in the public interest, and in accordance with the most beneficial use of the stream. Interim, conditional and final licences can then be issued as appropriate. These requirements are separate from those for obtaining a water licence under the NIWA, which supersedes the DWPA in some respects.

Yukon Territory - Territorial Legislation

Wildlife Ordinance

The Yukon Territory Wildlife Ordinance, administered by the Wildlife Branch of the Department of Renewable Resources, could affect water use on the Yukon River in a manner parallel to the Canada Wildlife Act. Specifically, s.35 prohibits damage to wildlife habitat declared under s.179 to be protected. A designation under the latter section can be based on the uniqueness, sensitivity, exposure or importance of the habitat, as must be specified. A person who disturbs designated wildlife habitat is liable (s.146) for the cost of rehabilitating it. No habitats on the Yukon River have yet been declared to be protected.

Land Planning and Development Act

This Act (ordinance) is a manifestation of the Yukon's growing assertion of the right to conduct its own affairs. It has not yet received Royal Assent and therefore is not yet in force. Under it a Land Planning Board is created, with the duty of making recommendations to the Executive Council and to the Minister of DIAND respecting land use planning in the Yukon. There is provision for public participation in the formulation of land use plans, as well as local participation through Land Planning Committees in each district. The duty of the latter is to prepare land use plans in light of a variety of variables and consistent with the activities of the Land Planning Board. A Committee's plan must state the broad social, economic and environmental objectives to be achieved by its implementation. This Act would apply only to territorial lands. Nonetheless if assented to it would become increasingly important as the territorial government gains control over more land in the Yukon. Alternatively, if the proposed co-operative federal-territorial land use planning program becomes operational in the Yukon, this territorial legislation may never be implemented.

British Columbia Legislation

Environment Management Act

Of the plethora of B.C. statutes which might incidentally affect water use in the province, and so in the Yukon headwaters, the Environment Management Act is perhaps the most important, apart from its provisions for environmental management, which are dealt with

elsewhere in this report. Under s.3 the Minister of the Environment can require an environmental impact assessment from any person proposing to do anything that would apparently have a detrimental environmental impact. A number of the developments proposed for the Yukon headwaters could fall into this category. According to the Environmental Impact Assessment Regulations, an assessment must incude any anticipated detrimental or beneficial effects on water use and the aquatic ecology.

If the Minister so decides, he may declare in writing that a proposed activity has or might have a detrimental environmental impact, so long as the facts on which the declaration is founded are stated. The Minister can then make an interim order (of less than 15 days duration) to control or prohibit the activity, after notice to the proponent but without a hearing. As well, the cabinet has the general power to control or prohibit the activity on whatever basis it wishes, again with notice but without hearings.

A further power available to the Minister is that of declaring that an environmental emergency exists. Such a declaration would probably be based on an apparent threat to the health or safety of nearby communities. Once an environmental emergency is declared, the Ministry can take those steps necessary to deal with it, regardless of other provincial statutes.

Fisheries Act

This provincial Act, which in part parallels the federal Fisheries Act, applies to dams and other hydraulic projects which use, divert or obstruct any stream. In such case the user must provide such

fishways and protective devices as are necessary in the opinion of the Ministry of the Environment to allow the safe passage of fish past the project. Exact plans must be submitted to and approved by the Minister prior to commencement of construction. On completion, adequate water to permit the fishways and protective devices to function properly must be allowed to escape. Finally, each project must be equipped with fish screens in appropriate locations.

This Act also provides for provincial management of inland fisheries. This responsibility was delegated to the provincial government by the federal government and covers all species but salmon.

Heritage Conservation Act

Under this Act, the cabinet is empowered to designate land as a provincial heritage site for, among other reasons, its historical or scenic significance. Not only was the early history of B.C. water oriented, but many rivers and lakes in the province are renowned for their scenery (e.g. Atlin Lake). Heritage sites might well be declared on lands adjacent to or parts of rivers such as the Yukon, and any interference with such a site is banned.

Hydro and Power Authority Act

This Act creates a crown corporation (B.C. Hydro) with a variety of powers regarding the production and supply of electricity in the province on a semi-monopolistic basis. These powers are outlined in s.12, with their exercise being subject to cabinet approval. They include the power to generate and distribute energy; to develop power

sites; to flood land, acquire and store water, and change the levels of bodies of water; and a variety of general powers to enable the corporation to carry out these objectives. In further aid of these, a wide power (s.16) of expropriation is available. Any major development of hydroelectric power in the B.C. part of the Yukon River would likely involve B.C. Hydro.

Industrial Development Act

This 1950 statute is the legislative basis for the hydro-electric plant at Kemano and refinery at Kitimat, but is so phrased as to be applicable to all such operations in the province. Essentially the Act allows the cabinet to permit a person proposing to establish an aluminum industry in the province to store and use unrecorded water, notwithstanding any other Act. Should such a new situation arise (other than at Kemano) it is likely that this Act would be rapidly superseded, given the subsequent evolution of more sophisticated land and water management controls.

Ecological Reserve Act

This Act allows Crown land to be reserved for ecological purposes, including lands which are representative examples of natural ecosystems as well as where rare or endangered native plants and animals in their natural habitat may be preserved. Reservation is by order in council published in the B.C. Gazette, and any area established as a reserve is protected from disposition under other statutes such as the Water Act. Regulations can be made to control or prohibit the use of natural resources (i.e. water) in an ecological

reserve. The Ecological Reserve Act has potential ramifications for use of the Yukon headwaters, although no reserves have been declared in the area yet.

Mines Act

Regulations under this statute declare that it is the duty of a mine owner to institute and carry out a program for the protection and reclamation of the land and watercourses on it so that when the mine is abandoned they are left in a condition satisfactory to the Minister of Mines. This program must be submitted to the Minister before mining begins, and is subject to approval by the Ministers of Environment, Agriculture, and Lands, Parks and Housing insofar as their ministries are concerned. This Act therefore has immediate and substantial consequences for any mine or placer mining proposed for the Yukon headwaters.

Park Act

The B.C. Park Act decrees that the Parks Branch has among its reponsibilities the management and administration of natural resources in the parks, and the control of individuals in the use and exploitation thereof. Specifically, no natural resource in a park can be granted, sold, destroyed, damaged or exploited without a valid park use permit, which cannot be issued unless in the Minister's opinion it is necessary to preserve recreational values in the park. For greater clarity, private construction in a park is prohibited without a permit, as is impoundment or diversion of water. Virtually all water use in provincial parks is thus banned,although as yet there is only one minor provincial park in the Yukon Basin, at the south end of Atlin Lake.

Wildlife Act

Under s.7 of the Wildlife Act, a person who without authority destroys or damages wildlife in a wildlife management area (declared under the Act) is liable for the cost of rehabilitation or damages. Also, interference with muskrat and beaver houses and dams is prohibited except to provide irrigation or drainage to protect property.

Forest Act

A good deal of Crown land in the province is commercially valuable forest land. This land, including much of the Atlin area, is administered by the Ministry of Forests under this Act. Harvesting methods, which can have major effects on bodies of water, are also regulated.

Chapter VI: International Aspects

Overview

As noted previously, Parliament, since the Statute of Westminster (1931), has jurisdiction over Canadian international affairs. These include relations with the United States, with which Canada shares lengthy borders, including those between Alaska and British Columbia and the Yukon. Until 1931 Canada's foreign relations were handled by Great Britain. A major mechanism was adopted during this period for solving issues between Canada and the United States. It is embodied in the International Boundary Waters Treaty, signed in 1909 and ratified by the Canadian Parliament in 1911.

International Boundary Waters Treaty

The treaty defines boundary waters as those lakes and rivers along which the international boundary passes, but not including waters flowing to or from them, or through the boundary. The Yukon River is one of the latter, in effect a trans boundary water the uses of which are governed by Article II. Essentially the upstream riparian may use or divert the water as it wishes, in accordance with the Harmon Doctrine as embodied in the article. This doctrine, which is not an accepted part of international law, is modified by the second part of the article, which provides that downstream transboundary users injured by the upstream interference or diversion are entitled to the same legal remedies as if the injury occurred at the same place as the diversion.

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The main contribution of the Treaty is the creation of the International Joint Commission, which at the direction of the signatory states investigates and if required adjudicates border water disputes. It is comprised of six members, three appointed by each country. One of each country's commissioners is appointed secretary, and together they act as joint secretaries. A majority of the Commission is necessary to decide any question; where the decision is even, the commissioners on each side report to their respective governments, who between them must attempt to find a solution which the Commision then implements. The Commission meets semiannually, first in Washington and then in Ottawa, and has the power to employ such technical staff as it requires.

So far as the Yukon River goes, the most relevant parts of the Treaty are Articles II, IV, IX, and X. Article III, outlined earlier, reserves to each country the right to use and divert waters in its territory as it wishes. The right is not unqualified, however. Downstream transboundary users who are injured by the interference or diversion are recognised as being entitled to the same legal remedies as if the injury occurred in the country where the diversion took place. This remedy could well prove illusory, however. A downstream riparian in Alaska injured by a licensed water use activity in the Yukon might well find that, being unlicensed under the Northern Inland Waters Act, he has no rights as against a licensee under the statute. The issue has not yet been tried.

Article IV is essentially aimed at dams on waters flowing out of boundary waters or flowing across the boundary. The construction of

such works is not permitted without permission of the International Joint Commission if they cause the level of upstream, transboundary waters to rise. Article IX provides that any question arising in relation to the frontier may be referred by either government to the International Joint Commission for investigation and report within the terms of reference. An example might be a Yukon River dam affecting water flows in Alaska. Such a report (or reports, if the Commission is divided) is not binding, but can be made binding where the referral to the Commission is under Article X. A simple majority will decide any question. If the Commission is evenly split, the matter must then be referred to an umpire appointed under the 1907 Hague Convention.

International Rivers Improvement Act

Throughout the 1950s there was ongoing controversy over American proposals for the two countries to utilize jointly the hydroelectric and flood control capacity of the Columbia River Basin. This Act was passed in 1955 to prevent any agreement to develop that basin between British Columbia and the United States without prior federal participation and approval. Essentially it forbids construction of international river improvements (i.e. any diversion or obstruction of rivers flowing into the U.S.) without a license.

Treaty of Washington (1871)

This treaty, signed between the United States and Great Britain (on behalf of Canada), preserves for both countries the right to free and open navigation throughout the Yukon River system. Any development on the Canadian side which would affect navigation (e.g. a major dam) would have to deal with the Treaty, even though there has not been significant shipping on the River for many years.

APPENDIX I: Statutes

Introduction

A number of constitutional, federal, provincial and territorial enactments are mentioned in this report. This section lists and briefly describes the functions of most of these statutes, as well as any agencies which are created by them.

Constitutional

Constitution Act, 1982

This Act was known as the British North America Act, 1867 until 1982. Up to then its status was that of a British statute, though one which by convention could only be amended with Canadian assent. In 1982 the Act was repatriated, and along with an added amending formula became entrenched as the central part of the Canadian constitution. Amendment is only possible by agreement between the federal government and at least seven of the ten provinces, with the assenting provinces comprising at least 50% of the population of Canada.

The Constitution Act creates two levels of Canadian government (federal and provincial), determines their composition, and apportions responsibilities between them. The jurisdiction of each level is fairly well defined, although technological and social changes inevitably stress this structure. Thus the division of legislative powers between federal (s.91) and provincial (s.92) legislatures has been expanded and refined by subsequent court decisions.

General Federal Statutes

Fisheries Act

This is concerned with both inland and ocean fisheries. Its major focus is protection of fish and their habitat from physical interference and pollution. In the Yukon Territory, fish protection is undertaken by the Department of Fisheries and Oceans whereas habitat protection is managed by the Environment Protection Service of the Department of the Environment. The Act is prohibitory rather than managerial in nature.

Canada Water Act

This provides for the development and implementation of water management and water quality management plans for river basins by appropriate intergovernmental agencies. These plans are often based on interjurisdictional agreements, as these basins are rarely confined to a single province or territory.

Navigable Waters Protection Act

The major purpose of this Act is to prevent obstruction of navigable rivers such as the Yukon. Obstructions primarily include dams, docks and other industrial uses, but fishing apparatus and the like are also controlled. The statute essentially prohibits obstructions and diversions of navigable waters unless a permit is first obtained.

Canada Shipping Act

Most of this statute has little relevance to the use and management of the Yukon River. It does, however, have extensive provisions dealing with pollution which might be applied to shipping on the river. The bulk of the Act is concerned with regulating and controlling shipping in Canadian waters.

National Park Act

Under this Act, Parks Canada is created as an agency of the Department of the Environment. It is responsible for administering national parks and controlling development within them in accordance with the statute. To that end it is given extensive powers within the parks, including control of natural resources such as water.

Canada Wildlife Act

Wildlife management is provided for in this Act, particularly of endangered and migratory species. The Act is administered by the Canadian Wildlife Service of the Department of the Environment. In the Yukon, the primary responsibility for wildlife management resides with the territorial government pursuant to the Yukon Wildlife Act.

Migratory Birds Convention Act

This Act provides for the management and conservation of migratory birds, as part of the Migratory Birds Convention between Canada and the United States. It is administered by the Canadian Wildlife Service.

Dominion Water Power Act

This defines dominion water powers and regulates structures which utilize them. It is particularly applicable to actual and potential hydro sites in the territories, although it has been largely superseded by the Northern Inland Waters Act. The Act is administered by the Renewable Resources section of the Department of Indian Affairs and Northern Development.

Federal Territorial Legislation

Department of Indian Affairs and Northern Development Act

This creates the Department of Indian Affairs and Northern Development, which is responsible in large part for administering the Yukon Territory and the Northwest Territories. It exercises all powers in the territories that have not been delegated by Parliament to the territorial legislatures. It has jurisdiction over most natural resources in the Yukon, including land and water.

Yukon Act

By this statute the Yukon Territorial Government is created and given administrative powers in the Yukon similar to those of a provincial government. These do not yet include any direct jurisdiction over natural resources, excepting only wildlife and urban lands.

Northern Inland Waters Act

This statute is central to water use and management in the territories. In the Yukon it establishes a body, the Yukon Territory Water Board, which licenses all water use in the territory. The provisions of the Act also provide for water management by the Board, but to date the Board has made limited use of these powers. The administration of the Act is provided by the Water Resources Section of DIAND.

Yukon Placer Mining Act

This Act controls all aspects of placer mining except (since the Northern Inland Waters Act was passed in 1970) the allocation and use of water for that activity. It is administered by the Non-Renewable Resources Branch of the Department of Indian Affairs and Northern Development.

Northern Canada Power Commission Act

Under this statute a crown corporation, the Northern Canada Power Commission, is created. It is empowered to seek out and develop northern power sources, including hydroelectric, so as to satisfy the needs of northern communities and industry. It does not have a monopoly. Proposed developments are subject to approval by the Minister of Indian and Northern Development.

Territorial Lands Act

This statute controls the disposition and use of all territorial lands, save for mining. Its incidental effect on water use is thus substantial. It is administered by the Renewable Resources Branch of DIAND.

Statutes Relating to International Rivers

International Boundary Waters Treaty (and Act)

This 1909 treaty is the primary mechanism for resolving Canada/United States disputes over the allocation and use of waters shared or flowing between the two nations. It establishes a body, the International Joint Commission, which investigates and recommends solutions to problems referred to it by the governments. Its recommendations can be binding, but more often form the basis of negotiated settlements.

International Rivers Improvement Act

The sole purpose of this statute is to forestall any agreement between a province and the United States to develop an international river basin without federal approval. By the Act, such an arrangement cannot be entered into without consulting with, and receiving the assent of, the Canadian government.

Canada Oil and Gas Act; Oil and Gas Production and Conservation Act

These statutes provide for oil and gas exploration agreements and production licences in the Yukon Territory and for the regulation of exploration and production activities so as to prevent waste and avoid pollution. It is administered in the Territory by the Non-Renewable Resources Branch of DIAND.

Territorial Ordinances and Acts

Area Development Ordinance

This is basically a planning statute. It provides the framework for controlling the growth of designated development areas, particularly with respect to provision of such services as water supply and sewage disposal.

Public Health Ordinance

This enactment permits virtually any action necessary to preserve public health. In particular, water supply and sewage disposal are subject to the monitoring and control of the Health Officer.

Land Planning and Development Act

This Act of the territorial legislature, which has not yet received assent, creates a Land Planning Board to oversee land use planning. Under it, Land Use Committees are to be created for each area to develop land use plans with public participation. The Act, if assented to, would apply only to lands in the Yukon controlled by the territorial government.

Wildlife Ordinance

Most of this ordinance is concerned with wildlife management, particularly hunting. There is however provision for the creation of protected wildlife habitats. The ordinance is administered by the Yukon's Department of Renewable Resources.

British Columbia Statutes

Water Act

This is central to the allocation and use of all water within the province. It is administered by the Comptroller of Water Rights, an official of the Water Management Branch of the Ministry of the Environment who is aided by a staff of engineers, etc. His functions consist of assessing applications for licences against the statutory criteria provided and then issuing them (or not) as appropriate. This Act also provides for the monitoring and supervision of licensed uses, but it does not deal with water quality.

Waste Management Act

This Act covers all types of waste discharges that pollute bodies of water. Under the Act, these activities must be authorized. Permits are obtained from the Waste Management Branch of the Ministry of the Environment, which applies waste management permit guidelines established for the different major industries in the province.

Environment Management Act

This has two parts. The first provides for comprehensive environmental management and planning by the Ministry of the Environment. This Act has been used, for example, to develop the strategic planning process which has been applied to some of the province's watersheds. The second part gives broad powers to the Minister of the Environment to deal with environmental emergencies.

Environment and Land Use Act

This Act establishes a committee of the B.C. Cabinet as the Environment and Land Use Committee. It has considerable powers to oversee land use and resource development, particularly in light of environmental concerns. On its recommendation, regulations regarding such matters can be made which overrule any other statute.

Utilities Commission Act

The B.C. Utilities Commission controls major energy projects in the province. If they meet the definition of a public utility, projects must

receive the approval of the Commission and after they are complete the Commission sets the rates that may be charged for the energy service. If the project meets the test of an "energy project," (whether or not a "public utility") the Ministers of Energy and of Environment may, in their discretion, refer the project to the Commission for review and recommendations prior to the issue of government approvals. Public hearings are an integral part of the Commission's processes.

Fisheries Act

Inland fisheries are administered by the Provincial government under this Act, in part by delegation from the federal government. Of particular interest are provisions prohibiting obstructions and diversions of streams without a permit. To some extent this Act overlaps with the provincial Water Act and the federal Fisheries Act.

Hydro and Power Authority Act

The B.C. Hydro and Power Authority is a crown corporation created by this Act. It has a major role in all aspects of power generation and distribution in the province. To that end the statute gives it extensiv powers; B.C. Hydro is answerable to the Utilities Commission and to Cabinet.

Wildlife Act

This primarily regulates hunting in the province. There are however provisions to protect habitat in wildlife management areas, in particular that of aquatic mammals.

Park Act

This Act gives authority for the creation of the province's parks, which are protected in various degrees. The Parks Branch of the Ministry of Lands, Parks and Housing is responsible for managing the parks and their resources in accordance with the Act.

Heritage Conservation Act

This Act authorizes the creation (where appropriate) of designated heritage sites, which are then protected from despoliation.

Ecological Reserve Act

Under this statute, Crown land may be reserved and protected for ecological purposes. Any use or development of land or resources in a reserve is strictly controlled by the Minister of Lands, Parks and Housing.

Mines Act

The Ministry of Energy, Mines and Petroleum Resources is empowered by this Act to supervise ongoing operations for the reclamation of land and of water courses disturbed by mining. Before a mine begins to operate, a plan for rehabilitation must be submitted and approved.

Mining (Placer) Act

The Ministry of Energy, Mines and Petroleum Resources administers placer mining under this Act. It is empowered to specify land (and associated water courses) as designated placer lands, which may then be staked and mined in accordance with the statute. Appropriate authorizations under other applicable statutes (such as the Water Act) are also required.

Forest Act

The province's extensive forests are managed under this Act by the Ministry of Forests. The Act amounts to a form of land use management, as such can have substantial incidental effects on water use. This is manifested, for example, in the regulation of cutting methods along stream banks.

Appendix II: Governmental Water Management Entities

Yukon Territory

Department of Indian Affairs and Northern Development (DIAND)

The Department of Indian Affairs and Northern Development (DIAND), established under an Act of the same name, has extensive jurisdiction over water management and resource management in general in the Yukon. It administers a large number of federal statutes, including the Territorial Lands Act; the Yukon Placer and Yukon Quartz Mining Acts; the Indian Act; the Northern Inland Waters Act; and the Oil and Gas Production and Conservation Act. The Minister of DIAND's responsibilities "include all matters over which the Parliament of Canada has jurisdiction" (s.4) and which relate to the Yukon, its resources and affairs. The Minister is charged (s.5) with developing and promoting policies for the further economic and political development of the Territory. To do so, he is given the "control, management and administration of all lands situated in the Yukon Territory" (s.6), except lands belonging to individuals, the territorial government, or other federal departments and agencies.

The extensive powers of the Minister of DIAND, who is located in Ottawa, are largely exercised in the Yukon by local officials of the Department. The Department has two major subdivisions, Indian and Inuit Affairs and Northern Affairs, each of which has regional headquarters in Whitehorse. Northern Affairs is subdivided into five sections, two of which have a significant role in water management. These are the Renewable Resources Section, with power to control the disposition of lands, forests and inland waters, and the Non-Renewable Resources Section, which is particularly responsible for the various aspects of the mining and petroleum industries. The Regional Office of Northern Affairs is administered by a Regional Director General, who is responsible for the two sections, each of which in turn is supervised by a Director.

The Renewable Resources Section is assisted by two advisory bodies, the first of which is the Land Use Advisory Committee (LUAC). It is comprised of 21 members representing all federal and territorial departments and agencies concerned with resource and land use management, and is headed by the Director of Renewable Resources. This committee advises on the issue of land use permits pursuant to the Territorial Land Use Regulations. The second advisory body, smaller but more powerful, is the Federal- Territorial Lands Advisory Committee (FTLAC), comprised of (from DIAND) the Director, Renewable Resources; the Supervisor of Lands; and the Director General of Indian and Inuit Affairs. Its members from the territorial government are the Director of Municipal and Community Affairs and the Deputy Head of Renewable Resources. It deals with the issue of leases and other land titles. The territory thus has a voice in land dispositions.

Northern Canada Power Commission

Another facet of DIAND jurisdiction is the Northern Canada Power Commission (NCPC), a crown corporation which reports directly to the Minister. It has extensive powers under its Act to plan and develop northern energy sources, including hydro-electric, but does not have a monopoly. Yukon Electric, a private company, also has energy producing facilities. The NCPC has four members, two appointed by the federal government, including the Assistant Deputy Minister of DIAND, and one each appointed by the two territorial governments.

Yukon Territorial Government (YTG)

The Yukon Territorial Government (YTG), a creation of federal statute (the Yukon Act), also has a major interest in water management. The Legislative Assembly of the YTG is currently comprised of sixteen members elected on a "representation by population" basis. The Executive Council of the Assembly, analogous to a provincial cabinet, is formed and headed by the leader of the elected majority party. Until 1978 the head of the Executive Committee (now the Executive Council) was also the Commissioner of the Territory, the chief representative of DIAND in the Yukon. Demands for local, responsible government led to his replacement by an elected member at that time, but the Commissioner still retains much of his power. As well, the Governor in Council can disallow statutes (ordinances) which are considered outside territorial authority or contrary to federal interests.

Many of the powers granted the territory by the Yukon Act parallel those which the provinces have under the Constitution Act, 1867. Significantly, however, the federal government retains jurisdiction over most natural resources, including land, water, fisheries, minerals and timber, and excepting only wildlife and urban lands. Even territorial control of wildlife is limited, however, by the hunting rights of native peoples, the fact that most wildlife habitat (i.e. lands) remains outside territorial jurisdiction, and by the paramountcy of federal legislation over conflicting territorial laws.

Two departments of the Yukon Territorial Government are of significance to water management in the Yukon. The first is the Department of Renewable Resources, which includes the Wildlife, Resource Planning, and Parks and Historic Resources branches, all with self-evident functions. The second is the Department of Tourism and Economic Development, which is subdivided into its two relatively autonomous constitutents. Finally, the YGT apppoints territorial residents to two committees, the Tourism Advisory Board and the Wildlife Advisory Committee, to allow public participation in the formation of territorial policy in these areas.

Yukon Territory Water Board (YTWB)

This Board, which is of crucial importance to Yukon water management, is created under the statutory authority of the federal Northern Inland Waters Act (NIWA). It is comprised of nine members, three nominated by the YTG, three by federal government departments and three by the Minister of DIAND who makes all the appointments. Currently the federal appointees, all from departments active in the Yukon, are the Director, Renewable Resources (DIAND); the Chief Medical Officer (DNHW); and the Director of EPS (DOE). The objectives of the Water Board are (s.9) to provide for the conservation, development and utilization of the water resources of the Yukon Territory "so as to provide the optimum benefit therefrom for all Canadians and for the residents of the Yukon Territory ... in particular." These objectives are not necessarily compatible.

The essential function of the YTWB is to issue, renew and cancel licences to use water, with the approval of the Minister of DIAND. It has the power to hold hearings on licence applications, as well as on matters generally within its scope. The Board also can be given authority to determine priorities for various water uses, which would imply a much larger role in actual water management than it currently assumes. The YTWB is funded by DIAND.

Interjurisdicitonal Institutions

Department of Fisheries and Oceans (DFO)

The activities of the federal Department of Fisheries and Oceans (DFO) have much effect on water management in both British Columbia and the Yukon. Its primary responsibility is enforcing and administering the Fisheries Act, except for s.33, which deals with water quality and is administered by the Environment Protection Service of the Department of the Environment. Essentially this means that DFO's duties are to protect, rehabilitate, and enhance fish habitat and fisheries in general. In the Yukon, it is charged with licensing domestic and commercial fishermen for all species, while in B.C. it only has responsibility for anadromous fish. Federal regulatory powers with respect to non-anadromous (i.e. exclusively fresh water) fish in B.C. are delegated to the provincial government.

Department of the Environment (DOE)

The Department of the Environment's duties include the protection of the environment and the promotion of wise resource use. Its main concern regarding Yukon River water management is with water quality. The agencies of DoE are the Environmental Conservation Service (ECS); the Environmental Protection Service (EPS); and Parks Canada. The ECS is further divided into the Canadian Wildlife Service (CWS) and the Inland Waters Directorate (IWD).

The Canadian Wildlife Service (CWS) is responsible for the protection of migratory birds through the development of regulations under the Migratory Birds Convention Act, as well as habitat management and research. It also develops programs for research and management of wildife of national interest under the Canada Wildlife Act, in cooperation with the Wildlife Management Branch of the Department of Renewable Resources in the Yukon and with the Fish and Wildlife Branch of the Ministry of the Environment in B.C. Finally, CWS is in charge of protective measures for endangered species. Its Yukon activities are directed from Vancouver.

The Inland Waters Directorate (IWD) is subdivided into three branches: Water Planning and Management; Water Quality; and Water Resources. The former is responsible for developing water management policies and programs, primarily under the authority of the Canada Water Act and particuarly for international and interprovincial river systems. Its activities are undertaken in cooperation with provincial, territorial, or foreign governments as appropriate. The Water Quality Branch is charged with assessing the quality of rivers and lakes, while Water Resources is responsible for collection of data on water flows. The Regional Office of IWD is in Vancouver; only the Water Resources Branch has a Whitehorse office.

The Environmental Protection Service (EPS) develops and enforces regulations under a variety of federal environmental statutes. Those which are relevant to water quality management are the Environment Contaminants Act, the Canada Shipping Act, the Canada Water Act and (most important) the Fisheries Act. Its most powerful tool is s.33 of the Fisheries Act, which provides quasi-criminal sanctions against those affecting water quality in an unauthorized manner. Regional headquarters of EPS are in Vancouver, while it has a district office in Whitehorse.

The third section of DoE concerned with water management is Parks Canada, which is mainly responsible for administering the National Parks Act and Regulations. It also identifies and recommends potential parks, and manages the use of resources within parks, including water. There is no statutory criteria for determining which land is to be allocated for parks, although the National Parks Branch of Parks Canada has developed an informal policy for this process. The Agreement for Recreation and Conservation (ARC) between federal and provincial governments assists in this endeavour. Lastly, Parks Canada is in the process of developing a heritage rivers system, in conjunction with the provinces and territories.

Federal Environmental Assessment and Review Office (FEARO)

This agency, which is founded on Cabinet order rather than on statute, is responsible for administering the Environmental Assessment and Review Process (EARP). It is independent and reports directly to the Minister of the Environment. This two-stage process applies to all major projects in which any department or agency of the federal government (apart from Crown corporations) is a participant, as well as major projects involving the use of Crown lands or other federal resources. The purpose of the process is to assess in detail the environmental, social and economic consequences of a project and the measures designed to minimize any adverse effects. The assessment is partly done by the proponent, after an initial screening determines its necessity, and is in conformity with guidelines developed for the project in conjunction with the EARP panel. Public hearings are required if this second stage is reached.

International Joint Commission (IJC)

The International Joint Commission is a body established by the International Boundary Waters Treaty (1909) to assess and recommend solutions to trans-boundary water management issues when instructed to do so by specific terms of reference from the member governments. It has six commissioners, three appointed by Canada and three by the United States, with a majority being sufficient to decide any issue. Each group has a small technical staff of its own and can also require further assistance from the member governments when necessary.

Ministry of Transport

This Ministry has, by virtue of the Canada Shipping Act and the Navigable Waters Protection Act, control over activities on, and the uses to which, navigable rivers may be put. In particular, obstructions of these rivers (such as the Yukon) must be licensed before they may be constructed. The Ministry's regional office is in Vancouver. So far it has little effect on water management of the Yukon River.

British Columbia

Ministry of the Environment (MoE)

Most aspects of water management in British Columbia are under the jurisdiction of the Ministry of the Environment, which administers the Environment Management Act, the (provincial) Fisheries Act, the Waste Management Act, the Water Act and the Wildlife Act. It is itself divided into several sections with various responsibilities. Of particular relevance to water management are the Environmental Management and the Planning and Resource Management Divisions.

The Environmental Management Division is subdivided into several branches, including the Fish and Wildlife Branch and the Waste Management Branch. The former administers the Wildlife Act, at times in cooperation with the Canada Wildlife Service, as well as the provincial Fisheries Act, which deals with non-anadromous species. The latter Branch is responsible for administering the Waste Management (formerly Pollution Control) Act and so controls water quality in the province.

The Planning and Resource Management Division is responsible for more comprehensive water management. It is divided into the Planning and Assessment Branch; the Water Management Branch; and the surveys and Resource Mapping Branch. The first is responsible for the strategic planning process evolved under the Environment Management Act, by which the province is divided by watersheds into eight Resource Management Regions, which are in turn subdivided into about forty Strategic Planning Units. Water management in each unit is to be handled on a comprehensive basis, and is being integrated with planning for other units comprising the region. One Strategic Planning Unit is the Atlin-Taku, which contains the Yukon headwaters and is part of the Skeena Resource Management Region. Water use in this unit is not intense, so it has not yet undergone the planning process.

The second part of the Planning and Resource Management Division is the Water Management Branch. This body provides administrative support to the Water Controller who issues licences to divert and use water. These licences are issued under the authority of the Water Act, but do not include conditions regarding waste disposal, which are dealt with separately by the Waste Management Branch (and Act). Both water use licences and waste management permits are issued regionally. Currently the north-west part of the province (including the Yukon headwaters) is administered from Smithers, but with impending government reorganization this administration will be shifted to Prince George.

This final part of the Planning and Resource Management Division is the Surveys and Resource Mapping Branch. Its functions are self-evident from its title. Among other things, these include measuring the quantity and quality of water in the province's water courses, as well as providing general technical support to the Waste Management and the Planning and Assessment Branches.

Parks Branch

A second provincial body with jurisdiction over water management is the Parks Branch, a part of the Ministry of Lands, Parks and Housing. Under the Park Act it is given jurisdiction (s.3) to manage and administer provincial parks as well as any natural resources contained therein. In respect of the diversion or use of water in a park, this power is exercised through park use permits. Water use and management in any provincial park in the Yukon River headwaters, such as Atlin Provincial Park, would thus be controlled by the B.C. Parks Branch.

Environment and Land Use Committee (ELUC)

This Cabinet committee, created under an Act of the same name, is currently comprised of the Ministers of Environment (its chairman); Agriculture; Economic Development; Health; Highways and Public Works; Energy, Mines and Petroleum Resources; Forests; Municipal Affairs; Housing; and Recreation and Tourism. It has very wide powers to control and oversee land use activities which affect the environment. In particular, its duties include encouraging efficient resource use and beneficial land use, with minimal despoliation of the environment. To do so it has extensive powers to conduct public hearings and inquiries, and to report and make recommendations to Cabinet regarding its areas of jurisdiction. It is also responsible for establishing programs to foster public awareness of the environment.

ELUC is served by a technical committee of deputy ministers, ELUTC. The Cabinet, on the advice of ELUC, can make Orders-in-Council or regulations regarding any matter involving environment and land use. Such orders have been made, for example, to require mandatory environmental impact assessment and the approval of the Minister of Environment of proposed developments in the Fraser River Estuary.

British Columbia Utilities Commission (BCUC)

This body, established under the provincial Utilities Commission Act, reviews and certifies major energy projects, including hydro-electric, and replaces the B.C. Energy Commission under the repealed Energy Act. A major energy project cannot proceed without an Energy Project Certificate specifying the terms and conditions under which it may be constructed. The application is made to the Ministry of Energy, Mines and Petroleum Resources, and by regulation must include a preliminary assessment of the environmental and social impacts of the project as well as proposals for mitigating any adverse effects. This usually takes the form of an Environmental Impact Statement, created in conformity with any relevant ELUC Guidelines and in consultation with concerned departments.

British Columbia Hydro and Power Authority (B.C. Hydro)

This Crown corporation has a virtual monopoly of hydro-electric power generation in B.C., due to its statutory powers. It is charged with providing for the energy requirements of the province by investigating and developing power sites. Given its power of expropriation of sites which are or might be used for power generation, there is little restraint on its activities apart from hearings by the B.C. Utilities Commission. B.C. Hydro is otherwise responsible only to the Cabinet.

Ministry of Lands, Parks and Housing

In addition to the provincial parks, which are administered by the Parks Branch, this Ministry is responsible for the management of Crown lands within the province, including water covered areas. Ministry powers include the sale or leasing of these lands for aquaculture or water reservoir purposes, as well as their use for mining, forestry and grazing. The possibilities for incidental effects on water management are substantial.

Ministry of Energy, Mines and Petroleum Resources

The activities of this Ministry, particularly as they relate to land use, might have much effect on water management. Of particular interest are its administration of the Mining Regulation Act, with its provisions for rehabilitation of lands and water courses disturbed by mining, and its jurisdiction over placer mining. The Ministry has regional offices throughout the province.

Ministry of Forests

Timber harvesting and processing is an important economic activity throughout the province, including the Atlin area, and is also a major land use. It is managed by the Ministry of Forests, which among other things controls forestry methods and practices, in particular as they affect bodies of water. It is thus both directly and indirectly of great effect on water use and management in B.C.

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STATUTES REFERRED TO

CANADA

1) Canada (Constitution) Act. 1982, c.11.

2) Canada Water Act. R.S.C. 1970 (1st supp.), c.5.

3) Canada Wildlife Act. S.C. 1973-74, c.21.

4) Constitution (British North America) Act, 1867. 30 & 31 Vict., c.3.

5) Department of Indian Affairs and Northern Development Act. R.S.C. 1970, Chap. I-7. Amended: 1970 (snd supp.), c.14.

6) Dominion Water Power Act. R.S.C. 1970, Chap. W-6.

7) Fisheries Act. R.S.C. 1970, Chap. F-14. Amended: 1970 (1st supp.), c.17; 1970 (2nd supp.), c.14; 1972, c.17; 1975, c.48; 1977, c.35; 1978-79, c.11 and c.13; 1980-81, c.47.

8) International Boundary Commission Act. R.S.C. 1970, Chap. I-19.

9) International Boundary Waters Treaty Act. R.S.C. 1970, Chap. I-20. Amended: 1976-77, c.28.

10) Migratory Birds Convention Act. R.S.C. 1970, Chap. M-12. Amended: 1970 (2nd supp.), c.14.

11) National Parks Act. R.S.C. 1970, Chap. N-13. Amended: 1974, c.11; 1976-77, c.28.

12) Navigable Waters Protection Act. R.S.C. 1970, Chap. N-19.

13) Northern Canada Power Commission Act. R.S.C. 1970, Chap. N-21. Amended: 1970 (1st supp.), c.16; 1974-75-76, c.15; 1976-77, c.34.

14) Northern Inland Waters Act. R.S.C. 1970 (1st supp.), c.28.

15) Shipping Act. R.S.C. 1970, Chap. S-9. Amended: 1970 (1st supp.), c.38; 1970 (2nd supp.), c.10 and c.27; 1974-75-76, c.48; 1976-77, c.28, c.38 and c.52; 1977-78, c.41; 1978-79, c.11 and c.13; 1980-81-82, c.47, c.54 and c.121.

16) Territorial Lands Act. R.S.C. 1970, Chap. T-6. Amended: 1970 (1st supp.), c.48; 1972, c.17; 1974-75-76, c.52; 1980-81, c.47.

17) Yukon Act. R.S.C. 1970, Chap. Y-12. Amended: 1970 (1st supp.), c.48; 1972, c.17; 1974, c.5; 1976-77, c.25, c.28 and c.34; 1980-81, c.47.

18) Yukon Placer Mining Act. R.S.C. 1970, Chap. Y-3. Amended: 1970 (1st supp.), c.28 and c.49; 1972, c.17; 1976-77, c.30.

19) Yukon Quartz Mining Act. R.S.C. 1970, Chap. Y-4. Amended: 1970 (1st supp.), c.28; 1972, c.17; 1976-77, c.30.

YUKON TERRITORY

1) Area Development Ordinance. Y.T.C.O. 1976, Chap. A-4.

2) Land Planning and Development Act. S.Y.T. 1982, c.22.

3) Public Health Ordinance. Y.T.C.O. 1976, Chap. P-8.

4) Wildlife Ordinance. Y.T.O. 1981 (2nd), Ch. 16.

BRITISH COLUMBIA

1) Ecological Reserve Act. R.S.B.C. 1979, c.101.

2) Environment and Land Use Act. R.S.B.C. 1979, c.110.

3) Environment Management Act. S.B.C. 1981, c.14.

4) Fisheries Act. R.S.B.C. 1979, c.137. Amended: 1981, c.20 and c.21; 1982, c.57.

5) Forest Act. R.S.B.C. 1979, c.140. Amended: 1980, c.14; 1981, c.20 and c.21; 1982, c.7.

6) Heritage Conservation Act. R.S.B.C. 1979, c.165. Amended: 1981, c.15.

7) Hydro and Power Authority Act. R.S.B.C. 1979, c.188. Amended: 1981, c.5, c.14, c.15 and c.21; 1982, c.7, c.14, c.32, c.41, c.53 and c.77.

8) Industrial Development Act. R.S.B.C. 1979, c.193.

9) Land Act. R.S.B.C. 1979, c.214. Amended: 1980, c.22; 1981, c.21; 1982, c.7, c.14, c.60 and c.76.

10) Mining (Placer) Act. R.S.B.C. 1979, c.264.

11) Mines Act. S.B.C. 1980, c.28.

12) Park Act. R.S.B.C. 1979, c.309. Amended: 1982, c.7, c.41 and c.43.

13) Waste Management Act. S.B.C. 1982, c.41.

14) Water Act. R.S.B.C. 1979, c.429. Amended: 1981, c.14 and c.20; 1982, c.7, c.60 and c.72.